CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, August 12, 1909.

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CONSTRUCTION NEWS.

Plans and Specifications on File.

(* *denotes that this work is advertised in Engineering News.*)

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.		See issue.
8-13	Stone, etc., St. Louis, Mo	(S.)	7-29
8-14	Crane track, Phila, Pa	(S.)	8- 5
8-14	Paving, etc., Phila, Pa.	(P. & S.)	8-29
8-14	Flushing equipment, Boston, Mass.	(S.)	7-29
8-14	Street paving, Philadelphia, Pa.	(S.)	7-22
8-14	Hospital, New York	(S.)	7-22
8-17*	Drainage canal, Augusta, Ga.,	(P. & S.)	7-29
8-21	Repairing bldg., Washington, D. C.	(S.)	7-29
8-28	Store houses, Portsmouth, N. H.	(S.)	7-29
8-28	Power bldg., Vallejo, Cal	(S.)	7-29
8-28	Dredging, slip, Boston, Mass.	(S.)	8- 5
8-28	Rifle butts, etc., Phila, Pa.	(S.)	8- 5
8-28	Barracks, Hingham, Mass	(S.)	8- 5
8-30*	Seawall, Galveston, Tex	(S.)	8- 5
9- 1*	Elec. plant, Monett, Mo	(S.)	8- 3
9- 1*	Park system, Minneapolis, Minn.	(S.)	7- 8
9-14*	Pumping engines, Detroit, Mich.	(P. and S.)	7-15

List of Contracts Pending.

LIGHT, HEAT AND POWER PLANTS.

8-14	Power-house, etc., Hudson, N. Y.	7-29
8-18	Elec. equip., Columbus, Ohio	7-29
8-18	Wiring, Ft. Wingate, N. Mex	8- 5
8-19*	Fixtures, West Point, N. Y	8- 3
8-20	Cable, Boston, Mass	7-29
8-23	Boilers, etc., Columbia City, Ind.	8- 5
8-28	Power bldg., Vallejo, Cal	7-29
9- 1*	Elec. plant, Monett, Mo	8- 5

BRIDGES.

8-14	Bridges, Otterbein, Ind	8- 5
8-16	Steel bridges, Lawton, Okla	7-29
8-16*	Concrete bridge, Phoenix, Ariz.	7-22
8-16	Bridges, Wausen, Ohio	8-12
8-16	Bridge, Lansing, Mich	8-12
8-16	Bridge, Topeka, Kan	8-12
8-17	Bridge, Hollidaysburg, Pa	8-12
8-17	Bridge, Rockville, Md	8-12
8-17	Bridge, Youngstown, Ohio	8-12
8-17	Bridge, Rumford, Me	7-22
8-17	Bridge plans, Asheville, N. C	7-29
8-18	Bridge, Obelisk, Pa	8-12
8-18	Culverts, Indianapolis, Ind	8-12
8-19	Bridge, Zanesville, Ohio	8- 5
8-19*	Bridge, Virginsville, Pa	8- 5
8-20	Bridge, Mount Gilead, Ohio	8- 5
8-20	Bridge, Columbus, Ga	8- 5
8-20	Bridges, Mitchell, S. Dak	8- 5
8-21	Bridge, Louisa, Ky.	8-12
8-23	Replacing bridge, Carlisle, Pa	8-12
8-23	Bridge, Dedham, Mass	8-12
8-24*	Bridge, Philadelphia, Pa	8-12
8-24	Bridges, Bismarck, N. Dak	8-12
8-25	Bridge, Pomfret, N. Y	8-12
8-25*	Bridge work, Chicago, Ill	7-29
8-28*	Steel or concrete bridge, Sebec, Me	7-15
8-30	Bridge, Bowling Green, Ohio	8-12
8-30	Bridge, Mount Vernon, Ohio	8-12
8-31	Bridge, Atlanta, Va	8-12
9- 7	Bridge designs, etc., Phoenix, Ariz.	8-12
9-21*	Steel bridge, Merced, Cal	7-29

BUILDINGS.

8-13	School, Portsmouth, Ohio	8- 5
8-14	Hospital, New York	7-22
8-17*	Boiler plant, Washington, D. C.	7-29
8-17	Field offices, New York	7-29
8-18	School, St. Paul, Minn	7-29
8-18	Repairing buildings, New York	8-12
8-20	Courthouse, Chehalis, Wash	8-12
8-20	Barracks, etc., Charleston, S. C.	7-29
8-21	Repairing bldg., Wash., D. C	7-29
8-23	Plans, Reno, Nev	8- 5
8-24*	Heating, Ft. Warren, Mass	7-29
8-24	Hospital annex, New York	8-12
8-26*	Quarters, New York, N. Y	7-29
8-28	Post-office, Laredo, Tex	8- 5
8-28	Barracks, Hingham, Mass	8- 5
8-28	Storage houses, Portsmouth, N. H	7-29
8-30	Post-office, Paris, Ky	7-29
8-31*	Post-office, New Orleans, La	7-29
8-31	Capitol, Madison, Wis	8- 5
9- 2	Post-office, Manhattan, Kan	8-12
9- 6	Court-house, Jasper, Ind	7-29
9- 7	Mech. equip., New Orleans, La.	8- 5
9- 9*	Post-office, Saratoga Springs, N. Y	8- 5
9-16	Post-office, San Angelo, Tex	8-12
9-18	Hospitals, Chelsea, Mass	8- 5

WATER-WORKS.

8-13	Water system, Bellevue, Idaho	8-12
8-13	Water-works extension, O'Fallon, Ill	8- 5
8-13	Water bonds, Chattanooga, Tenn	8- 5
8-14	Engines, etc., Maud, Okla	8- 5
8-16	Specials, San Francisco, Cal	8- 5
8-16	Pumps, Niagara Falls, N. Y	8- 5
8-16*	Water-works material, Bradford, Ohio	7-22
8-16*	Reclamation work, North Yakima, Wash	7-15
8-16	Supplies, Victoria, B. C.	7-15
8-16*	Water pipe, Boston, Mass	8-12
8-17*	Water pipe, New Bedford, Mass.	8-12
8-17	Water supply, National Military Home, Ohio	8- 5
8-17*	Dam, New Britain, Conn	8- 5
8-18*	Water-works, Perry, Ga	8- 5
8-18*	Water supply extension, Binghamton, N. Y.	7-29
8-18	Water-works, Park Falls, Wis.	8-12
8-18	Water mains, etc., New York	8-12
8-20	Water-works Impt., Mexico, Mo.	8-12
8-20	Standpipe, Gardner, Mass	8-12
8-21*	Water mains, Hadley, Mass	8-12
8-23	Tower and tank, Greenfield, Iowa.	8-12
8-23	Well, Pierre, S. Dak	8- 5
8-30*	Well, Fort Morgan, Ala	8- 5
8-30*	Water extension, Fort H. G. Wright, N. Y	8-12
9- 1*	Engine, Perth Amboy, N. J	8-12
9- 6	Water-works, Smithfield, N. C	8- 5
9- 6*	Water main, Vicksburg, Miss	7-29
9-14	Pumping engines, Detroit, Mich.	7-15

SEWERS.

8-13*	Sewer, Louisville, Ky	7-29
8-13	Sewer, Iowa City, Iowa	8-12
8-14	Sewer, Fort Terry, N. Y	8- 5
8-15	Sewers, Danielson, Conn	8-12
8-16	Sewers, Goshen, Ind	8-12
8-16	Sewer, Oklahoma City, Okla	8-12
8-16	Sewers, West La Fayette, Ind.	8- 5
8-16	Sewer, Hackensack, N. J	8- 3
8-17	Sewer, Virginia, Minn	8- 5
8-17*	Disposal works, Auburn, N. Y	7-29
8-17	Sewer, Toronto, Ont	8-12
8-17	Sewer, Ashtabula, Ohio	8-12
8-18	Sewers, Brooklyn, N. Y	5-12
8-18	Sewer, Gates, N. Y.	8-12
8-18	Sewers, Mount Vernon, S. Dak.	8- 5
8-18*	Sewer, Fort Lee, N. J	8- 5
8-19	Sewer, Albert Lea, Minn	7-29
8-19*	Sewers, Providence, R. I	8-12
8-20	Sewer system, Newkirk, Okla	8-12
8-20*	Sewer, Louisville, Ky	8-12
8-20	Vitrified pipe, Beloit, Wis	8-12
8-21	Sewer, Fort Atkinson, Wis	8- 5
8-21	Sewers, Xenia, Ohio	8- 5
8-23	Sewer connections, Willoughby, O.	8-12
8-24	Sewers, Marion, Kan	8-5
8-24*	Sewers, Belmar, N. J	7-29
8-25	Sewer, Wilkes-Barre, Pa	8-12
8-26	Sewer, Gainesville, Fla	8-12
8-26	C.-I. heads, New York	8-12
8-27*	Sewer, Bordentown, N. J	8-12
8-30*	Sewer, Westfield, N. J	8-12
9- 1*	Sewers, etc., Baltimore, Md	8-12
9- 1	Sewer, etc., West Pownal, Me	8-12
9- 1	Sewers, Rogers, Ark	7-29
9- 6*	Sewer, Vicksburg, Miss	7-29

STREETS AND ROADS.

8-13*	Highways, Albany, N. Y	8- 5
8-13	Sidewalks, Pleasant Ridge, Ohio.	8- 5
8-13	Paving, Fort Myer, Va	8- 5
8-13	Pike impvt., Cincinnati, Ohio	7-29
8-13	Highway repairs, etc., Albany, N. Y	7-29
8-13	Roads, Hollidaysburg, Pa	8-12
8-14*	Sidewalks, Washington, D. C	8-12
8-14	Sidewalks, Fort Robinson, Neb.	8-12
8-14	Macadam, Columbus, Ohio	7-29
8-14	Street paving, etc., Philadelphia, Pa	7-22
8-14	Road, Scottsburg, Ind	8- 5
8-14	Roads, Fort Terry, N. Y	8- 5
8-15	Road, Wilson, N. C	8-12
8-16	Road impvt., Euclid, Ohio	7-29
8-16	Road impvt. bonds, Shelby, N. C.	7-29
8-16	Street impvt., St. Paul, Minn	7-29
8-16	Pavement, Sacramento, Cal	8-12
8-16	Paving, Cedar Rapids, Iowa	8-12
8-16	Paving, Atlantic, Iowa	8-12
8-16*	Highways, Baltimore, Md	8-12
8-16	Pavement, etc., Montezuma, Ia.	8-12
8-16	Macadamizing, Oakland, Cal	8-12
8-17	Paving, New York	8-12
8-17	Pavement, New York	8-12
8-17	Road, St. Joseph, Mo	8-12
8-17	Pavement, etc., Toronto, Ont	8-12
8-17	Roads, Anderson, Ind	8- 5
8-17*	Highway repair, Albany, N. Y.	8- 5
8-18	Grading, etc., Cleveland, Ohio.	8- 5
8-19	Road Impt., Pittsburg, Pa	8-12
8-19	Pavement, De Pere, Wis	8-12
8-20*	Grading, etc., Fort Plain, N. Y.	8-12
8-20	Macadam, Janesville, Wis	7-29
8-21*	Driveways, Madison Barracks, N. Y	7-29
8-21	Paving, Bellefontaine, Ohio	8- 5
8-23	Road, Staunton, Va	8- 5
8-23	Grading, etc., Ashland, Ohio	8- 5
8-23*	Paving, Red Bank, N. J	8-12
8-23	Regulating, etc., New York	8-12
8-23*	Grading, etc., Ridgefield Park, N. J.	8-12
8-24	Grading, etc., Toledo, Ohio	8-12
8-26	Grading, etc., Steubenville, Ohio.	8-12
8-27*	Highway repair, Albany, N. Y.	8-12
8-28*	Paving block, etc., Norfolk, Va.	8- 5
8-30	Sidewalks, Fort Howard, Md	8- 5
8-30	Road, Rushville, Ind	7-29
9- 6	Road, Shelbyville, Ind	7-29
9- 6*	Paving, Vicksburg, Miss	7-29
9- 8*	Grading, etc., Griffin, Ga	8-12

MISCELLANEOUS.

8-13	Stone, St. Louis, Mo	7-29
8-13	Ditch, New York	8-12
8-14	Crane track, Philadelphia, Pa	8- 5
8-14	Wharf, etc., Ft. Terry, N. Y	7-29
8-14	Drains, track, paving, Philadelphia, Pa	7-29
8-14	Flushing equipment, Boston, Mass	7-29
8-15	Iron posts, Ottawa, Ont	7-29
8-16*	Dikes, revetment, Kansas City, Mo.	7-22
8-16*	Vacuum system, Grand Rapids, Mich.	7-29
8-16	Steamer repairs, New York	8- 5
8-16	Levee, culverts, Dardanelle, Ark.	8-12
8-17	Dredging, Portland, Ind	8-12
8-17	Lumber, New York	8-12
8-17*	Dock, N. Hempstead, N. Y	8- 5
8-17*	Cement, Cincinnati, O	8- 5
8-17*	Drainage Canal, Augusta, Ga.	7-29
8-18	Battleships, Washington, D. C.	6-24
8-18*	Channel, Boston, Mass	8-12
8-18	Vacuum system, Des Moines, Iowa	7-29
8-20	Cable, Boston, Mass	8-12
8-23	Dredging, San Francisco, Cal	8-12
8-25*	Dredging, Chicago, Ill	8-12
8-25*	Creek impvt., Syracuse, N. Y	8- 5
8-25*	Retaining wall, Bay City, Mich.	8- 5
8-27*	Vacuum system, Houston, Tex	8- 5
8-27	Fire engine, Duluth, Minn	8-12
8-28	Dredging, slip, Boston, Mass	8- 5
8-28	Rifle butts, etc., Phila, Pa	8- 5
8-28*	Dredging, New York	7-29
8-30*	Seawall, Galveston, Tex	8- 5
8-30	Levee, New Orleans, La	8-12
8-30*	Storehouse, Wash., D. C	8-12
8-30	Drainage, Arcadia, Tex	8-12
9- 1	Ditch, Harrisburg, Ark	8-12
9- 1*	Tunnel, Chicago, Ill	8- 5
9- 1*	Park system, Minneapolis, Minn.	7- 8
9- 3*	Light-house, Tompkinsville, N. Y.	8-12
9- 4	Dredging, Tiburon, Cal	8-12
9- 6	Ry., Esquimalt & Nanaimo Ry.	8-12
9-28	Vacuum system, Pierre, S. Dak.	7-15

EXAMINATIONS.

8-18	Arch. Draftsman, Philippines	8-12
8-24	Engineers, Chicago, Ill	8-12
8-25	Asst. Inspector, Wash., D. C	8-12

RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

CANADA.—In reporting rumors of railway extensions in his district, Frederick M. Ryder, U. S. Consul, Rimouski, Que., writes as follows concerning the railway charters granted by the Canadian Parliament and the small proportion thereof which have materialized into railways. Should all the railway charters granted by Parliament ever materialize, the Dominion will be a vast network of railways. The records show that for the 20 years ending with 1909, exclusive of the charters granted to the Canadian Pacific, Grand Trunk Pacific, and Canadian Northern, 203 charters have been granted to railway companies, authorizing an aggregate construction of 63,809 miles. Of the total number of companies incorporated only 25 have constructed any portion of the railways authorized, 86 have lapsed, and the remainder have been granted extensions of time. Since 1900 there have been 117 charters granted, of which 26 have lapsed.

The Railroad Commission of Canada has issued an order compelling every railroad company in Canada to have all of its right-of-way fenced in by Jan. 1, 1911. The order states that the fence must be of a minimum height of 4 ft. 6 ins. and gates must be provided at every farm crossing. At every level crossing there must be adequate cattle guards. The width of approaches on main roads must be 16 ft. and on side or bush roads 8 ft.

CANADIAN PACIFIC.—See Esquimalt & Nanaimo Ry.

DELAWARE & EASTERN.—The Public Service Commission, Second District, New York, has authorized the Delaware & Eastern Railway Co. to issue its capital stock, par value, of $2,050,000, and its 50-year 5% gold bonds, secured by its mortgage, dated July 1, 1907, to the Empire Trust Co., of New York City, to the amount of $4,570,000 par value. The capital to be secured by the bonds is to be used for the construction of its proposed road between Schenectady and a point near Hancock, Delaware County, dividing the states of New York and Pennsylvania. The Delaware & Eastern Railway Co. was incorporated in May, 1907. F. F. Searing, Pres., 7 Wall St., New York, has stated that $3,500,000 had been underwritten in London under the terms of the agreement filed with the Public Service Commission, Second District, and that the proceeds from the sale of these bonds and the remaining bonds and stock authorized would be used to extend the road north from its present terminus at Arkville along the valley of the Delaware to Schenectady, where it would connect with the Boston & Maine, West Shore and New York Central lines, a distance of about 85 miles, and south from East Branch to Hancock, 15 miles, where it would connect with the Erie at the state line. About 50 miles of this new construction, Mr. Searing said, it was hoped to complete this season. O. F. Wagenhorst is Gen. Supt., Margaretville, N. Y.

ESQUIMALT & NANAIMO (Canadian Pacific Ry.).—Bids are asked by this company until noon, Sept. 6, for the grading of the last section of the extension of its road on Vancouver Island, from 108th Mile Post to Alberni, 27½ miles. This passes along the shores of Cameron Lake over the divide and into Alberni, and calls for considerable heavy rock work. It is estimated that in some parts the work will run up to $60,000 a mile, and it may take twelve months to complete the grading. Address communications to R. Marpole, Vice-Pres., Vancouver, B. C. Plans and specifications can be seen at the office of R. A. Bainbridge, Division Engr., E. & N. Railway, Victoria, and H. J. Cambie, Ch. Engr. E. & N. Railway, Vancouver, B. C. At present the grading of the road is practically completed from Wellington, the present terminus to French Creek, a distance of 24 miles. A heavy rock cut, not far from Wellington, is the only portion uncompleted.

FRONTIER & WESTERN.—This company has been incorporated at Buffalo, N. Y., to build an extension of the Buffalo Frontier Terminal R. R., from the intersection of the latter with the New York Central Co.'s Niagara Falls Branch, north of Buffalo, to the International Bridge across the Niagara River. The purpose of the extension is to afford the Buffalo Frontier Terminal R. R. Co., which is to build an outer belt line around the city of Buffalo, connection with railway lines entering Buffalo over the International Bridge. Charles W. Goodyear is Pres., 962 Ellicott Sq. Bldg., Buffalo; Robt. F. Schelling is Secy., 11 German Insurance Bldg., Buffalo. The Buffalo Frontier Terminal Ry. Co. was noted on July 29.

HUDSON BAY & PACIFIC.—The complete estimates of cost of this proposed railroad, to be built by the Dominion Government from Le Pas to Fort Churchill, are now practically completed and will be turned in to the Department of Railways and Canals soon.

NEW YORK CONNECTING RY.—Company has taken title to a strip of land extending from the Astoria shore through Long Island City, N. Y., to Cabinet St., the southern line to Trains Meadow, comprising frontages on 25 thoroughfares. With the last acquisition the company has now purchased a clear right-of-way, varying in width from 80 to 150 ft., and extending about 4¾ miles, from Astoria to the Glendale section, in the Second Ward, Boro. of Queens, New York City. The total outlay for these holdings was close to $5,000,000. The proposed bridge across Ward's Island, exclusive of embankment approaches, but including steel approaches, will be more than 1⅛ miles in length. The central span above Hell Gate will be 1,000 ft. long, and 135 ft. above high water. Work on the roadbed will be begun simultaneously with the bridge work. The first section to be constructed will extend to the main line and principal branches of the Long Island-Pennsylvania Railroad in order to afford passenger connections between the New Haven and Pennsylvania systems. After the Connecting Ry. Co. has completed its passenger lines the freight road will be extended to Bay Ridge. The land needed for the Westchester connections of the New Haven road has been acquired. It is roughly estimated by the directors of the Connecting Ry. Co. that the cost of the line across Hell Gate and through Long Island City will be $25,000,000.

OREGON & EASTERN RY. — The UTAH CONSTRUCTION CO., of Ogden, Utah, it is announced, has been awarded contract for building the first 25-mile section of the Natron-Klamath Falls line. Noted on July 22.

PENNSYLVANIA LINES WEST OF PITTSBURGH.—We are officially advised that the Pennsylvania Lines West of Pittsburgh have just started work on important double-tracking and grade revision, designed especially to facilitate the movement of traffic on the Pittsburg, Chicago, Cincinnati & St. Louis R. R., between Columbus and Chicago on the one hand, and between Columbus, Indianapolis and St. Louis on the other. The first of these undertakings involves the double-tracking of 99 miles between Horatio, Ohio, and Onward, Ind. This improvement will involve 1,500,000 cu. yds. of excavation, and the installation of 25,000 yds. of masonry, and the removal of 20 grade crossings. It will also call for the elimination of all facing point switches on this part of the line except those which are interlocked. These improvements have been rendered necessary by the development of the steel plant at Gary, Ind., where a very large amount of coal and coke from the West Virginia coal fields is used. The cost of this undertaking will be about $3,000,000. Grading will be pushed as rapidly as possible this year and it is expected that the tracks will be in use by the summer of 1910. With the completion of this work the Pennsylvania Lines West of Pittsburgh will have an alternative double-track road betwen Pittsburg and Chicago as the entire line is already double-tracked except between these two points, and about six miles through Piqua, Ohio. To facilitate the movement west of Columbus destined for Indianapolis and other points for the Southwest, the 63 miles between Richmond and Irvington, Ind., are to be double-tracked, and all grades reduced. Estimated cost, $4,000,000. Contracts for two sections of this line have been let already, covering the 17 miles between Richmond and Dublin. These two sections will involve the excavation of 1,187,000 yds. of earth, the elimination of 20 highway crossings, and the installation of 46,500 yds. of masonry.

For the seven miles between Dunreith and Knightstown, Ind., 513,200 yds. additional of excavation will have to be taken out and 23,300 yds. of masonry will be installed. By this improvement eleven highway grade crossings will be eliminated. It is planned to raise the grade at Cambridge City, Ind., about 27 ft. in order to separate the crossings of the Pennsylvania Lines with the Big Four, and the Lake Erie and Western Railways. The Cambridge City Branch will be abandoned between Cambridge City and Ben-

tonville, Ind., a distance of 6.2 miles, and a new line built from Bentonville to a connection with the main line at Dublin, a distance of five miles, in order to reduce the ruling southbound grade of this branch. Except for six miles through Piqua, and 31 miles between Bradford and New Paris, this work between Richmond and Irvington will complete the double-tracking between Pittsburg and Indianapolis.

It is announced that contracts have geen awarded to H. E. CULBERTSON & CO., Citizens Bldg., Cleveland, Ohio.; and the LORIMER-GALLIGER CONSTRUCTION CO., 217 La Salle St., Chicago, for a portion of the double tracking of the Logansport division of the Pittsburg, Cincinnati, Chicago & St. Louis Railroad between Richmond, Ind., and Indianapolis. Contracts previously awarded were to DRAKE & STRATTON, of Philadelphia, for the first section of 17 miles; BRENDLINGER & CO., of Philadelphia, for the second section and C. SIMS & CO., for the third section. Noted on July 15 and July 8.

QUEBEC & SAGUENAY.—An extension will be built, from the northern terminal of the Quebec Ry., Light & Power Co., at Cape Tourmente, Que., northeast along the north bank of the St. Lawrence River, about 56½ miles. It is probable that the work will be started this fall. The line will cost $2,000,000. Arrangements may be made with the Q. R. L. & P. Co. to operate the line when built.

RUSSELL-PRATER RY.—Chartered in Virginia to build a railroad twelve miles long in Dickenson County, Va., to connect with the Carolina, Clinchfield & Ohio Ry. Capital, $25,000. Leon Isaacsen, Pres., 561 First St., Brooklyn, N. Y.; C. M. Crawford, Ironton, Ohio, Secy. I. E. Hager, B. E. Whitman and C. F. Hager, all of Ashland, Ky., are the other incorporators.

SOUTHERN PACIFIC.—See Oregon & Eastern Ry.

TEXAS SHORT LINE.—A preliminary survey is being made from Alba to Sulphur Springs and Paris, Tex. T. B. Meeks, of Grand Saline, Tex., is Pres. and Gen. Mgr.

VALLEY RY.—Chartered in Arkansas with $100,000 capital, of which $14,000 has been subscribed. Company will build a line seven miles long in Perry County from Houston to Perryville, connection to be made with the Rock Island System, Choctaw District, near Houston. Frank C. Faust is Pres., Mabelvale, Ark.; A. F. Leigh, Vice-Pres. and Treas.; John L. Hill, Secy. Other directors are: W. F. Pitts, S. V. Taler, G. H. Buckingham, J. E. Rose, J. H. Bowen, A. F. Leigh and J. J. Rankin, all of Perryville.

WEST MEMPHIS BELT LINE & TERMINAL R. R.—Incorporated in Arkansas to construct a railway, twelve miles in length, around West Memphis from Bridge Junction to Hopefield, Ark. Incorporators, Edwin Boysden, of Wheetley, Ark.; R. L. Mixon, H. F. Roleson, W. E. Ayers, Hugh Mixon, J. B. Badgett, E. E. Badgett and H. N. Pharr, of Marianna, Ark.; A. B. Shafer and L. P. Berry, Jr., of Memphis, Tenn.

WINSTON-SALEM SOUTHBOUND.—Contracts for bridge work on this railway have been let to the VIRGINIA BRIDGE & IRON CO., and the PENNSYLVANIA BRIDGE CO. Bids are now under consideration for the general construction of this railway which will be about 88 miles long. It will run from Winston-Salem, N. C., via Lexington, Fairmont, Whitney, and Albemarle, to Wadesboro, N. C. There will be three viaducts about 800 ft. long each; seven deck spans over Yadkin River; three spans 150 ft. each over Rocky River; 12 deck spans of 65 ft. over smaller streams and 16 steel overhead bridges. O. H. P. Cornell is Ch. Engr. and H. E. Fries, Pres., both at Winston-Salem, N. C. Surveys are made and right-of-way secured.

ELECTRIC RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—At a recent meeting of the Portland, Gray & Lewiston R. R. Co. plans were taken up for building this line. As officially noted on Jan. 14, this proposed line is to be built by the company and will be 28½ miles long. It will connect Lewiston, Auburn, New Gloucester, Gray, Cumberland, Falmouth and Portland. Surveys are made; right-of-way is not yet secured. E. W. Gross is Pres., Berlin, N. H. John A. Jones, Lewiston, Me., is Ch. Engr.

DAYVILLE, CONN.—The Attawaugan St. Ry. Co., of Putnam, Conn., has been incorporated with a capital stock of $50,000, to construct several railway lines in this vicinity, one from Wildwood Park to Attawaugan, another beginning at Attawaugan Station on the High North of Alexandria Lake, running to Attawaugan. The main line of the company will run from Dayville through Attawaugan, Ballouville and Pineville to Daniel's factory village. The incorporators of the company are T. L. Darbie, J. M. Paine and N. A. Phillips. Noted on July 15.

MOUNT VERNON, N. Y.—At a public hearing, on Aug. 4, the Common Council of Mount Vernon granted the application of the New York, Westchester & Boston Railroad Co. for an amended franchise which will enable the corporation to continue the construction of its four-track rapid transit line connecting Mount Vernon, Pelham, New Rochelle and other towns with the subway. See items in issue of July 22.

NEW YORK, N. Y.—The Trackless Trolley Co., of New York city, with a capital of $150,000, has been incorporated. The directors are Charles E. Barrett, of New York City; and A. Livingston Norman and Sadie E. Wiener, of Brooklyn. A. Livingston Norman, with office at 25 Broad St., New York, counsel for the Trackless Trolley Co., has stated that the company had secured the American rights to a system of transportation which has been used successfully in Germany. By this system an omnibus is run over roads or pavement, power being furnished by a trolley run overhead. The absence of tracks makes the system available in rural communities where a regular trolley line would not be supported.

ATHENS, W. VA.—Bids will be received by the Mercer Elec. Ry. Co., at once for building six miles of line from Athens to Princeton, W. Va. One small bridge will be required. W. F. Wall, Blacksburg, Va., is Engr.-in-Charge. R. G. Meodor is Pres. Athens; R. C. Dangerfield, Vice-Pres.; A. M. Sutton, Secy; J. R. Vermillie, Treas., all of Princeton, W. Va.

ANDERSON, S. C.—The property of the Anderson Traction Co. will be offered for sale by J. A. Brock, Special Master, Anderson, S. C., at public auction in Anderson on Oct. 12, in accordance with the decree filed by the United States Circuit Court in the district of South Carolina in suit brought by the International Trust Co. of Maryland.

PARIS, TENN.—The Cairo & Nashville Interurban Railway Co., of Henry County, has been chartered to build an electric railway from a point on the Kentucky boundary in Obion County, near Fulton, Ky., via Paris, to Nashville, Tenn., about 120 miles. Capital, $25,000. The incorporators are Thomas C. Rye, John C. Sweeney, D. B. Sweeney, John C. Sweeney, Jr., and Charles E. Steaks.

DETROIT, MICH.—The Detroit, Lansing & Grand Rapids Ry. Co. has been organized in Michigan, with $25,000 capital and office at Detroit, to build from Detroit, Mich., west via Lansing, to Grand Rapids, about 150 miles. The promoters include O. H. Lau and H. M. Wallace, of Detroit; G. Valentine, W. T. Utley and R. G. St. Johns, Chicago.

BENTONVILLE, ARK.—It is officially announced by the Arkansas Co-operative Construction Co., which is constructing the Northwest Arkansas Elec. Interurban Ry. that surveys are completed between Bentonville and Gentry, Ark., Springdale, Ark., and Joplin, Mo., a total distance of 103 miles. Right-of-way is now being secured. Location work is being completed between Joplin and Neosho, Mo. Grading is soon to start on the Gentry division. Several branches are contemplated which will open up the territory between the Kansas City Southern R. R. and the St. Louis & San Francisco R. R. The new railway will connect with the Southwest Missouri Electric R. R. at Joplin, Mo. The railway probably will be in operation within 18 months. P. H. Sackett is Ch. Engr., at Bentonville. Noted last week.

MARSHALL, TEX.—The Marshall Traction Co. has been incorporated to build an electric railway within the corporate limits of Marshall. Capital stock, $25,000. Incorporators, Marvin Turney, F. H. Prendergastt, John Copeland and others.

EL RENO, OKLA.—The El Reno Interurban Co. has been given a bonus of $10,000 by the city of Yukon and work is now under way from Oklahoma City, Okla., east to Yukon. It is expected to open this section about May, 1910. The line is eventually to be extended east to Shawnee. H. Dittner and H. Schafer, El Reno, are interested.

SEATTLE, WASH.—The Seattle, Snohomish & Everett Ry. plans to construct an overhead electric railway to connect Seattle, Bothell, Snohomish and Everett, a distance of about 32 miles. Capital stock, authorized and issued, $500,000. Headquarters, 443 New York Block, Seattle. Clyde C. Chittenden is Pres.; Joseph R. McLaughlin, Vice-Pres.; Charles W. Kimball, Secy. and Treas.

SNOHOMISH, WASH.—Right-of-way is being secured by the Everett & Cherry Valley Traction Co., for its proposed electric railway from Snohomish through the Cherry Valley to Falls City. Company was organized in 1907, with $1,500,000 capital. The trustees of the company are J. T. McChesney, F. W. Brooks, E. C. Mony, L. S. Duryee and J. A. Coleman, of Everett, Wash.

CLE ELUM, WASH.—The Cle Elum & Roslyn Ry. & Power Co. plans to begin construction soon, it is stated, on its line from Cle Elum to Roslyn, twelve miles. Frank S. Farquhar, of Tacoma, has the franchise for this company.

JACKSONVILLE, ORE.—Franchise has been granted the Jackson County Light & Power Co. over the roads of this county. The company intends to begin construction of an electric railway traversing the Rogue River valley.

TROY, ORE.—The Troy Mercantile Milling & Power Co. has been incorporated in Oregon, with $20,000 capital, and office at Enterprise, Ore., to build an electric line from Troy, Ore., south to Hurricane Creek. R. W. Barkham and H. E. Merryman are the incorporators, Enterprise.

HOOD RIVER, ORE.—Surveys are now being run by the Valley Electric Ry. Co. for its proposed electric line which will connect the towns in the Rood River country. It will be about 20 miles long. Preliminary capital stock, $5,000. E. T. Folts, Hood River, is Pres.; A. M. Kelly, Mount Hood, Vice-Pres.; G. W. Dimmick, Mount Hood, Treas.; H. B. Langille, Hood River, Ch. Engr., and Secy.

ONTARIO, ORE.—O. C. Wright, of Portland, Ore., is promoting an electric railway, to be built from Ontario, on the Snake River, through the Payette Valley, to Emmet, Idaho. The Ontario Commercial Club is also interested.

CORVALLIS, ORE.—It is planned to connect Corvallis and the Alsea Valley by electric railway. The Commercial Club of Corvallis, is backing the project. A. J. Johnson, Pres., has appointed committee consisting of C. E. Water, A. P. Johnson, A. L. Stevenson, W. K. Taylor and Robert Johnson, to take up matter of securing right-of-way.

KLAMATH FALLS, ORE.—The Klamath Falls Land & Transportation Co., which has a franchise for building an electric railway, plans an expenditure of $100,000.

OAKLAND, ORE.—The Oakland & Tidewater Ry. Co. has been incorporated to build an electric railway from Oakland to Empire. Capital stock, $1,000,000. Headquarters, Portland. Incorporators: C. A. Pengra, H. D. May and W. W. Purdy, of Portland.

PRIEST RIVER, IDAHO.—The Panhandle Electric Railway & Power Co. has plans under way for commencing construction on its proposed 30-mile electric railway between Priest River and Coolin. A power station having a capacity of 30,000 HP. will be built on the Priest River. Besides operating the railway, power will also be furnished for mining and manufacturing purposes. Vernon M. Smith is Pres., Spokane, Wash.

WINDSOR, ONT.—Construction will be commenced soon, it is stated, by the Windsor Tunnel & Lake Erie Ry. Co. on its projected standard-gage single-track railway, which is to connect Windsor, Sandwich, West Vereker, New Canaan, McGregor, Huron and Oxley. It will be about 30 miles long. R. A. Bailey, Detroit, Mich., is Pres.; Dr. J. A. Smith, Windsor, Vice-Pres.; Walter Boug, Windsor, Treas.

LIGHT AND POWER PLANTS.

WILLIMANTIC, CONN.—It is reported that the Willimantic-Rockville Lighting Co. has absorbed the Willimantic & Stafford Springs Ry. Co., which latter concern was chartered by the General Assembly to manufacture electricity for lighting and power purposes. Walter Learned, of New London, Conn., has been elected Pres. of the company.

LITTLE NECK, N. Y.—The North Shore Traction Co. has purchased from the McKnight Realty Co., 347 Fifth Ave., New York, a strip between Douglaston and Bayside, for the purpose of widening Broadway at that point, and will build a power-house on the McKnight Realty Co.'s property at the head of Little Neck Bay on Broadway.

SPEERS, PA.—It is stated that the West Penn Electric Co. will erect generating plant at Speers, opposite Belle Vernon. Estimated cost, $1,000,000. G. R. Folds, Connellsville, Pa., is Gen. Mgr.

MERCER, PA.—Owsley & Baucherle, Engrs., of Youngstown, Ohio, have been selected to prepare plans for a power-house which the County Commissioners will erect at Mercer, to cost about $14,000.

GLEN JEAN, W. VA.—The Fayette Public Service Corporation incorporated with $20,000 capital stock, will take over franchises recently granted at Fayetteville and Oak Hill and will award contracts for construction of electric lighting system. The Stuart Colliery Co. will furnish electric power and the new company will have charge of distribution. J. P. Davis, Stuart, W. Va., is Pres. and Gen. Mgr.; J. P. Staton Vice-Pres., and R. J. Stegall, Secy.-Treas, both of Glen Jean.

WADESBORO, N. C.—The hydro-electric power plant at Blewett's Falls, the property of the Rockingham Power Co., was sold on July 15 at auction, at Wadesboro, by order of the Federal Court. D. H. Thomas, representing the bondholders, was the only bidder, securing the property for $1,000,000. Over twice that amount has been spent in the development of the property and about $500,000 will be necessary to complete the project which will develop 30,000 HP.

LINDEN, WIS.—The Mineral Point Electric Light Co., of Mineral Point, has secured a franchise to furnish light and power in Linden. F. C. Ludden, Mineral Point, is Mgr.

JOPLIN, MO.—The plans that have been under consideration for the construction of a power plant, to cost $2,000,000, by Henry L. Doherty & Co., 60 Wall St., New York, have been perfected, according to the Joplin "Globe," and the site of the new plant will be announced definitely and the contract let soon for the construction to begin. Although the first installation will cost $2,000,000 and will supply 15,000 HP., it is the intention to construct the plant to allow of additions until $6,000,000 has been expended and a 60,000-HP plant installed. The pole lines of the company will be extended to supply electric power throughout the entire lead and zinc belt. Surveyors will start to work in the next few days laying out a route for extensions in Carthage, Alba, Neck City, Spring City, Baxter Springs, Miami, Granby, Neosho and all surrounding towns. The plans are to enlarge the lines to three times their present capacity. All lines in Joplin, Webb City and Galena are to be rebuilt and improved.

MURFREESBORO, ARK.—We are officially advised that the Pike County Water Power Co., of Little Rock, Ark., proposes to build a hydro-electric plant on the Little Missouri River, near Murfreesboro. The company plans to expend about $500,000, and expects to be able to develop about 10,000 HP. The Fuller-Coult Co., Chemical Bldg., St. Louis, Mo., have been retained as Engrs.

DURANT, OKLA.—The Southwestern Engineering Co., of Oklahoma City, is preparing plans for the city electric light plant; also for a sedimentation basin for the waterworks. W. S. Shannon is City Clerk.

PUEBLO, COLO.—Ira T. Miller, of Pittsburg, Colo., and associates, plan to build a $50,000 plant at Pueblo for the purpose of extracting iron for the supply of the Pittsburg mills. E. W. Marlin, of Pittsburg, is interested in the project, as is John Farson, 164 Dearborn St., Chicago.

GREELEY, COLO.—Press reports state that the Greeley-Pouche Irrigation Co., D. A. Camfield, Pres., Greeley, and the Denver Tramway Co., J. A. Beeler, Pres., Denver, will soon let contracts for the power plant and irrigation system in northern Colorado. The plans include building the Roosevelt reservoir, which is to be enlarged by constructing a dam 400 ft. high. Transmission lines will be constructed to bring the power to Denver for the use of the tramway, and also for operating interurban lines out of Denver.

CRIPPLE CREEK, COLO.—According to local press reports locations have been made by C. P. Whitney, of this city, on four placer mining claims containing about 62 acres and four reservoir sites on Cripple Creek, between the portal of the Roosevelt Deep Drainage Tunnel and the mouth of Cripple Creek, where it empties into Four Mile Creek, about eight miles below the tunnel. Mr. Whitney, it is reported, has secured the necessary capital to construct the reservoirs and to construct a power plant to be operated by water power. It is expected that the water from the Roosevelt tunnel will furnish the supply necessary to generate electricity, and it is proposed to furnish power and light from the plant in this district and elsewhere. The surplus water will be further piped to the agricultural district south of the tunnel for irrigation purposes, should the plans materialze.

TACOMA, WASH.—Frank C. Kelsey, Engr.-in Charge of the construction of the new $2,000,000 municipal power plant, has enlarged his original plans so that 30,000 HP. of electrical energy will be developed from the Nisqually River instead of 20,000 as at first proposed. This 30,000 HP. of current will be brought in over the city transmission lines to the station to be erected at South C and 25th Sts. Mr. Kelsey expects to have the plans in detail finished and the field work in shape so that bids can be advertised for the work of constructing the plant by Jan. 1, 1910. Sites have already been selected for the dam, power-house and reservoirs. The concrete dam will be 45 ft. in height with a base of that width. There will be a spillway crest of 300 ft. and during high water the stream will flow 15 ft. over the top of the dam, which will be 10 ft. wide at the top. Part of the distance to the power station the water will be carried through a 10-ft. riveted steel pipe. Owing to the many bends in the Nisqually River, this steel tube will have to run across the canyon. To support the main, Mr. Kelsey is designing a 200-ft. arch span, with an 80-ft. truss at each end, making the total length of the bridge 360 ft. Where the arch span will be built, the canyon is 250 ft. deep and the walls of rock are almost perpendicular. Foot walks will be placed on either side of the pipe. For nearly 10,000 ft. of the distance to the power station, the water will be carried underground, necessitating the boring of a hole through solid rock. This tunnel will be 8 ft. wide and will carry 8 ft. of water. The interior of the tunnel, which will be 700 ft. below the surface at one point, will be rough and jagged at first. A coating of cement will have to be given to reduce the resistance and to cover up the leaks.

BELLINGHAM, WASH.—A permit to build a power plant on Thunder Creek, where it flows into the Skagit River, about 40 miles above Marblemount, in the forest reserve, has been granted to the Thunder Creek Transportation & Smelting Co. by the Forestry Department of the U. S. Government, it is stated. It is planned to start the construction of the plant this summer. The purpose in erecting the plant is to secure power with which to develop the mines of the North Coast Mining & Milling Co. at the head of Thunder Creek and to operate a railroad which it is proposed to build. Right-of-way for an electric line up Thunder Creek to its source has already been secured by the Thunder Creek Transportation & Smelting Co.

LOS ANGELES, CAL.—The City Council has approved the recommendation of the Board of Public Works that $10,000 be set aside from the general taxes for each of the next two years to pay the cost of the preliminary work of establishing power plants along the line of the aqueduct. The matter was sent to the Budget Committee with the instruction to set aside this amount. In the report of the Board of Public Works asking this appropriation, it was shown that with the Owens River water 93,000 HP. of electricity could be developed. An expert employed by the aqueduct department to go over the ground has estimated that it would be best to develop three-fourths of this power and figured the cost at $4,494,000, and time of three years. At current prices the amount of power developed would net an annual income of $1,406,000. William Mulholland is Ch. Engr., Aqueduct Comn., 440 South Hill St.

ESCONDIDO, CAL.—Seth Hartley, of Colton, Cal., has submitted a proposition to the City Council for installing an electric lighting and power plant, sufficient for a population of from 8,000 to 10,000, six times the present population. The plant is scheduled to cost between $26,000 and $30,000, the electric current being generated by a steam plant with crude oil as fuel. The City Trustees are asked to grant a franchise for the plant, and it is probable that they will do so.

VANCOUVER, B. C.—The British Columbia Electric Ry. Co. has made application for 30,000 miners' inches from Indian River, near Vancouver, and proposes to erect an auxiliary power plant. R. H. Sperling is Gen. Supt.

PACHUCA, MEXICO.—The Compania Electrica y Irrigadora of the State of Hidalgo is preparing to handle the expected increase demand for power. Another power plant will be installed at Tetepango, costing $2,000,000 and which will be finished in twelve months, furnishing 6,000 HP. The necessary surveys and plans have been completed. The company's present capacity is 8,000 HP., which was installed at a cost of $3,000,000.

BRIDGES.

*SEBEC, ME.—Bids were opened on July 28 at the office of the State Commission of Highways, Paul D. Sargent, State Comr., Augusta, for constructing a highway bridge over Sebec stream at Sebec. The contract has been awarded to FRED. T. LEY & CO., of Springfield, Mass., for a 3-span, concrete arch bridge. Estimated cost, $7,500.

DEDHAM, MASS.—Bids are asked by the Commissioners of Norfolk County until 10 a. m., Aug. 23, for the construction in Dedham Ave., in the towns of Dedham and

Needham, of a arched concrete masonry bridge of two spans across the Charles River and of about 500 ft. of highway approaches. B. T. Wheeler is Consulting Engr.

SAYBROOK, CONN. — Edward Wallace Bush, 638 Asylum Ave., Hartford, has been selected chief engineer for a bridge to be constructed by the State near the mouth of the Connecticut River here. It will contain a draw and be about 2,000 ft. in length, and have trolley tracks. This bridge is located on the direct line of travel from New Haven to New London, Providence, and other shore resorts. The State Legislature recently authorized a $500,000 bond issue for this purpose.

POMFRET (Portland post-office), N. Y.—Bids will be received until Aug. 25 by the Town of Pomfret for constructing a reinforced concrete arch or steel girder bridge, with span, 80-ft. width of driveway, 30-ft., and two 6-ft. sidewalks. Henry Peterson is Town Supt., Fredonia.

JERSEY CITY, N. J.—The Joint Bridge Committee of Essex and Hudson Counties has adopted the plans of the County Engineers for a wide roadway between Hackensack and Plank Road bridges and for a new bridge to replace the Plank Road structure across the Passaic River. In connection with road improvement a stone wall 4,000 ft. along the canal will be constructed. The building of a bridge between Elmwqod Ave., Jersey City, and Arlington, across the Passaic River, is under consideration.

*PHILADELPHIA, PA.—Bids are asked by George R. Stearns, Dir. Pub. Wks., until noon, Aug. 24, for reinforced concrete arch bridge, 63 ft. 9-in. span, 80-ft. wide, on line of Thomas Ave., over the West Chester & Philadelphia, R. R.

We are officially advised that the HENNEBIQUE CONSTRUCTION CO., 1170 Broadway, New York, has contract at $100,000 for the construction of a bridge over 62d St. G. E. Quimby is Bridge Engr.

HOLLIDAYSBURG, PA.—Bids will be received until Aug. 17 by the Board of County Commissioners, W. Howard Harpster, Chn., for constructing five reinforced concrete bridges, one each in Logan, Taylor and Woodbury Townships, and two in Frankstown Township.

PITTSBURG, PA.—The city contemplates erecting a bridge at Forward Ave. to cost between $13,000 and $16,000 to replace the present structure. N. S. Sprague is City Engr.

PITTSBURG, PA.—Tentative plans for the widening of the Smithfield St. bridge were agreed to on July 29 at a conference of officials of the city, the Pittsburg Railways Co., the Baltimore & Ohio R. R. Co., and the Pittsburg & Lake Erie R. R. Co. The improvement wiil cost $90,000. N. S. Sprague, Supt. Bureau of Construction, submitted plans for making the bridge six feet wider. The addition will be made to the upper side of the bridge; all of the street car tracks will then be shifted to that side, leaving the other portion of the structure free to vehicle traffic. The north approach will be made fan shape, extending west on Water St. 100 ft. and 20 ft. on East Water St. J. A. Atwood is Ch. Engr. Pittsburg & Lake Erie R. R. Co.

OBELISK, PA.—Bids will be received until Aug. 18 by the Board of County Commissioners, Norristown, Adam F. Saylor, Chn., for constructing a double stone arch bridge at Scioto Creek on the public road between Obelisk and Perkiomenville, Frederick Township.

BUTLER, PA.—Bids will be received by the County Commissioners at Butler, until 11 a. m., Aug. 14, for rebuilding the masonry or substructure of what is known as the upper Bonnie Brook bridge, in Summit Township, over Bonnie Brook Creek, on road leading from old Stevenson mill to Carbon Center. W. B. Scott is Clk.

CARLISLE, PA.—Bids are asked by the Commissioners of Cumberland County until 10 a. m., Aug. 23, for replacing the bridge over the Conodoquinet Creek at Peiffer's mill in Newton and Upper Mifflin Townships, near Newville.

BALTIMORE, MD.—The city will rebuild the Franklin pike bridge. B. T. Fendall is City Engr.

WOODLAWN, MD.—SIMMERS & BARNES of Bays Cornèr, have received the contract for the construction of a wooden bridge over Rutler's Creek here.

ROCKVILLE, MD.—Bids are asked by the Montgomery County Commissioners, Rockville, until noon, Aug. 17, for constructing a bridge over the Kensington-Chevy-Chase road. Robert G. Hilton is Clk.

ALTAVISTA, VA.—Bids are asked until Aug. 31 by the Altavista Land & Improvement Co. for constructing a bridge 450 ft. long over the Staunton River at the foot of Broad St.

LURAY, VA.—The Page County Board of Supervisors will construct two double-track bridges over the Shenandoah River.

WHEELING, W. VA.—Plans will be prepared by the City Engineer for the Market St. Bridge, which provides for a reinforced concrete arch structure and also for a steel girder encased in concrete. Bids will be asked on both styles of bridges.

GREENSBORO, N. C.—Guilford County has awarded contract to the OWEGO BRIDGE CO., Owego, N. Y., for constructing a concrete bridge, 112 ft. long, across South Buffalo Creek. Estimated cost, $3,400.

LOUISA, Ky.—Bids will be received until Aug. 21 for rebuilding bridge at the mouth of George's Creek. Length of span, 139 ft. H. B. Highberger is Special Comr.

BOWLING GREEN, OHIO.—Bids will be received until Aug. 30 by F. W. Toan, County Audr., for furnishing material and constructing a bridge over the Portage River, in Webster Township, 95 ft. long, with a 16-ft. roadway. Bids for substructure and superstructure are to be submitted separately. Bidders on the superstructure may submit plans of their own.

WAUSEON, OHIO.—Bids are asked until Aug. 16 by the County Commissioners for constructing two bridges in Fulton Township and one bridge in Amboy Township.

MOUNT VERNON, OHIO.—Bids are asked until noon, Aug. 30, by the County Commissioners, for constructing a new bridge in Butler Township, near Zuch. Estimated cost, $12,000.

YOUNGSTOWN, OHIO.—Bids will be received by the Board of Public Service and the Director of Public Service until noon, Aug. 17, for furnishing the necessary labor and materials for constructing a steel bridge over the railroad tracks and the river at Spring Common, Youngstown. W. H. McMillin is Clk.

COLUMBUS, OHIO.—We are officially advised that contracts for the railroad and bridge at the Ohio State University were awarded on July 26 as follows: Grading, to WILLIAM H. LUCHTENBERG & CO., Columbus; track-laying, to D. E. SULLIVAN & SON, Columbus; substructure of bridge, to ACME PAVING & CONSTRUCTION CO., Columbus; superstructure of bridge, to MOUNT VERNON BRIDGE CO., Columbus.

CRAWFORDSVILLE, IND.—The Commissioners of Montgomery County have awarded contract for the construction of the Grant Ave. bridge to WILLIAM SLATTERY. The bridge will be a reinforced concrete arch structure.

Bids will be asked soon by the Commissioners of Montgomery County for the construction of an iron bridge over the Monon R. R. on the Vernal pike. The railroad will bear a portion of the cost.

AUBURN, IND.—Plans are being prepared for the construction of a concrete bridge across Cedar Creek at Ninth St. Bids will be received by the City Clerk.

KENDALLVILLE, IND.—The Town Board and County Commissioners are planning to construct a new concrete bridge over Deibele Creek. Bids will be asked as soon as plans and specifications have been completed.

INDIANAPOLIS, IND.—Bids are asked by the Commissioners of Marion County until 10 a. m., Aug. 18, for the construction of four concrete culverts in Decatur Township. John M. Mendenhall is Chn.

INDIANAPOLIS, IND.—The Commissioners of Marion County have ordered plans on which bids will be asked for the construction of a new bridge over Fall Creek on line Marion and Hamilton Counties. Estimated cost, $20,000.

LANSING, MICH.—Bids will be received by the City Clerk until Aug. 16 for constructing a bridge of reinforced concrete on Mt. Hope Ave. over Sycamore Creek, the bridge to have a 44-ft. span, 30-ft. roadway, with two 5-ft. walks. H. A. Collar is City Engr.

BELLEVILLE, Ill.—The BISCHOF-RENNER CONSTRUCTION CO. has been awarded contract for constructing a concrete bridge over the branch in West's pasture on Maple Ave.

CHICAGO, ILL.—We are officially advised that contracts were awarded as follows on July 28 by the Board of Trustees of the Sanitary District of Chicago for constructing bridges over the North Shore Channel: West Railroad Ave. bridge, to FORT PITT BRIDGE WORKS, House Bldg., Pittsburg, Pa., at $7,836; Lincoln Ave. bridge, to TOLEDO-MASSILLON BRIDGE CO., Toledo, Ohio, at $9,858; Bryn Mawr Ave. bridge, to KENWOOD BRIDGE CO., 164 Dearborn St., Chicago, at $2,832.

MANCHESTER, IOWA. — The Delaware County Commissioners have awarded contract for erecting a concrete bridge over the Maquopeka River at Bailey's Ford, to N. M. STARK BRIDGE CO., of Des Moines, at $5,650.

TOPEKA, KAN.—Bids will be received by S. G. Zimmerman, Clk Bd. County Comrs., until Aug. 16, for the construction of a 75-ft. span steel bridge over Six-Mile Creek, Williamsport Township.

BISMARCK, N. DAK.—Bids will be received until Aug. 24 at the office of I. W. Healy, County Audr., for constructing three steel bridges, two 40-ft. and one 24-ft., all to have 18-ft. roadways. Bids will be received for both arch and I-beam bridges, and separate bids for repair of bridge in Menoken Township, and for repairing the Falconer bridge.

HARDIN, MONT.—Yellowstone and Rosebud Counties will probably erect a bridge across the Big Horn River at Hardin.

ST. LOUIS, MO.—The MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., has been awarded contract by the city at $459,836 to construct piers of the municipal free bridge at the foot of Chouteau Ave., Bedford limestone, with granite noses. Noted last week.

KANSAS CITY, MO.—The McCLINTIC MARSHALL CONSTRUCTION CO., Park Bldg., Pittsburg, Pa., has been awarded contract for the construction of a large bridge across the Missouri River at Kansas City for the Terminal R. R. Co. The structure will require about 13,500 tons of steel. The bridge will be of a varied type of construction with a lift span.

OKEMAH, OKLA.—Okfuskee County has voted $100,000 of bonds for the construction of bridges.

CARLSBAD, N. MEX.—The MIDLAND BRIDGE CO., 622 Gibraltar Bldg., Kansas City, Mo., has secured contract to erect three bridges for the county, one at Artesia, cost $12,000, one at Carlsbad, cost $10,000, and one at Malaga, cost $2,700.

LEAVENWORTH, WASH.—The Board of County Commissioners have decided to erect a new wagon bridge over the Chumstick River near Leavenworth. Bids will be asked soon.

MARYSVILLE, CAL.—It is proposed to construct a bridge across the Yuba River. Estimated cost, about $110,000. J. F. Eastman is County Clk.

PHOENIX, ARIZ.—The Board of Supervisors of Maricopa County, Phoenix, are about to build a bridge across Salt River, and desires designs, detail plans, specifications and estimates. The board offers $5,000 as first and only prize for accepted plans. Party to whom award is made must superintend the erection. For complete conditions of competition and full information as to proposed bridge address the said board. Designs and plans will be received by the Board until 2 p. m., Sept. 7. To be a wagon and foot bridge of concrete reinforced with steel.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Harrison H. Atwood, Arch., 61 Alban St., Dorchester, Mass., will prepare plans, it is stated, for the courthouse to be erected at East Boston. Estimated cost, $80,000.

BRIDGEWATER, MASS.—Two buildings, one three stories high and another of four stories, are to be built at the State Farm at Bridgewater, besides several other smaller ones. The Legislature has made appropriations for the work as follows: $81,000 for a prison building built in wards, $90,000 for a criminal insane detached building, $5,000 for a cold storage plant, $7,500 for a concrete water tower and $1,500 for two new silos and milk coolers. The work will be in charge of Arthur J. Maynard, Supt. of Constr., and excavations have been started for the buildings. The ward building for prisoners is to be built in the rear of the main buildings of the prison department. The prison building will be four stories high, built in 32 wards, each accommodating on an average 17 men. The building will be 2,770 × 48 ft. The insane building will be 352 × 45 ft., three stories high, with four day rooms, a chapel seating 200, kitchen and dining-room. There will be 156 rooms, 8 × 12 ft., heated by hot air, and lighted by electricity from the central plant. The four day rooms will be 26 × 65 ft.

CHELSEA, MASS.—The Boston "Globe" states that at a recent meeting of the Chelsea Board of Control it was voted to award the contract for the erection of the proposed city hall, at the corner of Washington Ave. and Broadway, to the WHITON & HAYNES CO., 35 Federal St., Boston, Mass. The contract price set by the Board is $173,977. Noted fully last week.

A Y. M. C. A. building, to cost $80,000 will be erected here to replace the old building, which was destroyed by the Chelsea fire. Plans have been completed. The structure will overlook Bassett Sq.

GREENWICH, CONN.—F. A. Moore, Arch., 571 Fifth Ave., New York, is preparing plans for a 3-story frame residence to be erected on Round Hill, Greenwich, for Tyler L. Redfield, of 411 West 43d St., New York. Estimated cost, $100,000.

BUFFALO, N. Y.—The Red Jacket Press Co., Otto Retter, Pres., 509 Main St., is having plans prepared for a 4-story and basement business block, 40 × 102 ft., of brick and steel construction, and fireproof, to be erected at the corner of South Division and Oak Sts.

BUFFALO, N. Y. — The Co-operative Amusement Co., Dr. J. Grafton Jones, Pres., 473 Virginia St., will build a 1-story and gallery theatre 55 × 135 ft., of pressed brick and terra cotta, at 523 William St. Cost, $40,000. Henry L. Spann, 413 West Delavan Ave., Arch.

BUFFALO, N. Y.—We are officially advised that in the architectural competition for plans for the proposed Technical High School building to be erected on Broadway, Milnor and Potter Sts., Martin C. Miller, 620 Mutual Life Bldg., Buffalo, was the successful architect. The building will be of modern French architecture, three stories and basement in height, with a frontage of 234 ft. on Broadway and a depth of 236 ft., arranged to accommodate 1,200 students. The estimated cost is $412,000. Robert North, Arch., 1326 Prudential Bldg., was associated with Mr. Miller in the preparation of the drawings. Contracts will be let probably in October.

The Board of Councilmen has adopted notice of intention to build a police station on Genesee St., near Parade Ave. Francis G. Ward, Comr. of Pub. Wks., has authorized Howard L. Beck, 12 Erie County Bank Bldg., City Arch., to prepare plans.

Emmanuel Baptist Church Society, Rev. J. J. Patterson, Pastor, 323 15th St., has selected the competitive plans of Martin C. Miller, 612 Mutual Life Bldg., for a 2-story and basement church structure, 50 × 135 ft., to be erected at the corner of Normal Ave. and Rhode Island St. Construction will be of brick with stone trimmings, structural and ornamental iron. Estimated cost, $40,000. Bids will be received at once.

NEW YORK, N. Y.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has secured the contract for two reinforced concrete warehouses, each 150 × 150 ft., six stories and basement, to be constructed for the Bush Terminal Co., 36th St., South Brooklyn, N. Y. William Higginson, Park Row Bldg., New York, is Arch.

Allen & Collens, 1170 Broadway, and James W. O'Connor, Archs., have filed plans for the enlargement of the old Roman Catholic Church of St. Vincent Ferrer, at Lexington Ave. and 66th St. The front facade is to be torn down, and a new one built, finished with two tall ornamental towers of Gothic design, octagonal in shape, and having belfries. Over the new central entrances will be a third smaller spire, rising above the pediment cornice. New chapels with small altars and an ambulatory are to be erected on the north and south sides of the present chancel. The remodelled vestibule will be finished with ribbed limestone walls, and solid marble plaza steps, and have a vaulted guastavine ceiling. The reconstruction work is to cost $170,000.

The Charter Construction Co. will erect a 12-story elevator apartment house on a plot 160 × 50.5½ ft. at the southeast corner of 77th St. and Broadway from plans by Janes & Leo, Archs., 124 West 45th St. It will cost about $700,000.

The plans for the $500,000 apartment house which the Harperly Hall Co. will build on the northwest corner of Central Park West and 64th St., have been filed in the Building Bureau. The building will contain 62 apartments. It will have a frontage on the park of 100.5 ft., and a depth of 90 ft.

NEW YORK, N. Y.—Six 4-story flat houses are to be built on the easterly side of Webster Ave., about 37 ft. north of 187th St. Each house will be 33.4 × 69.10¾ ft., and will be built by John Rendall from plans by Koppe & Daube, Archs., 830 Webster Ave., at a cost of $108,000.

The Camolin Realty Co., Andrew J. Connick, Pres., has announced that it had commissioned Hoppin, Koen & Huntington, Archs., 224 Fifth Ave., to draw plans for a 12-story store, loft and office building, to be erected on the site owned by the company at the northeast corner of Fifth Ave. and 43d St. The old building on the premises is being razed, and as soon as plans are completed work will be begun on the proposed structure, which will be ready for occupany Feb. 1, 1910.

NEW YORK, N. Y.—Gaetan Ajello, Arch., 1 West 34th St., is completing plans for the improvement of the west side of Claremont Ave., 309 ft. north of 116th St., with an 11-story elevator apartment house, 78.1¾ × 82 ft. Estimated cost, $350,000. B. CRYSTAL & SON, 21 West 34th St., will erect the building.

Harry T. Howell, Third Ave. and 149th St., has prepared plans for a 6-story elevator apartment house to be erected at the southeast corner of Tremont Ave. and Crotona Parkway, Bronx, for the Rosa Realty Co. The building will be 100.9 × 116.10 ft., having all improvements, marble halls, and bath rooms, steam heat, telephone surface, electric lights. Cost, $150,000.

D'Oench & Yost, 289 Fourth Ave., are preparing plans for a 6-story loft building, 50 × 90 ft., of brick, stone and galvanized iron, non-fireproof, to be erected at Nos. 514-516 West 33d St., by L. T. Alton, of 1418 Broadway. Cost, about $60,000. The same architects have been selected to prepare plans for a new office building for the Germania Life Insurance Co., 20 Nassau St., to be erected at the northeast corner of Fourth Ave. and 17th St., to cover a plot 84 × 115 ft. in ground dimensions. The actual number of stories in height has not yet been determined, although it is probable that the building will be at least 16 stories. Cornelius Doremus is Pres. and Carl Heye, Secy. of the company. Alfred D'Oench, 289 Fourth Ave., is a director.

NEW YORK, N. Y.—Bids are asked by the Department of Public Charities until 2.30 p. m., Aug. 24, for the erection and completion of annex on west side of main building, Kings County Hospital, Boro of Brooklyn.

NEW YORK, N. Y.—Bids are asked until 10.30 a. m., Aug. 18, by Nicholas J. Hayes, Fire Comr., for furnishing all the labor and materials required for repairs and replacements to headquarters building, Nos. 365 and 367 Jay St., Brooklyn.

FREEPORT (L. I.), N. Y.—Ground was broken on July 30 for a new edifice for the Church of Our Holy Redeemer, Freeport. Rev. Charles A. Logue, priest, has charge. Cost, $60,000. The building will be Romanesque in style, 72½ × 138 ft., capacity about 800, red brick, with white ornamental moulding and trimmings and green slate roof. The interior will be of ornamental plaster and marble and fine woodwork.

JAMESTOWN, N. Y.—John H. Coxhead, Arch., 926 Ellicott Square Bldg., Buffalo, has had plans accepted for 2½-story and basement hospital building 30 × 150 ft., to be erected at Jamestown, N. Y., by the city. Structural steel and brick with stone trimmings. Cost, $50,000. Dr. Jason Parker, is Chn. Building Com.

OLEAN, N. Y.—Green & Wicks, Archs., 110 Franklin St., Buffalo, are receiving bids for an addition to the Olean Hotel, Olean, 40 × 51 ft., four stories, of brick. Cost, $25,000. H. S. Sartwell is Proprietor.

DUNKIRK, N. Y.—The Merchants' National Bank, H. H. Droege, Cashier, is having plans prepared by Green & Wicks, 110 Franklin St., Buffalo, for a new bank building to be erected corner of Lyon St. and Railroad ave. Cost, $20,000.

PEEKSKILL, N. Y.—E. E. Joralemon, Arch., 225 Second St., Niagara Falls, N. Y., is preparing plans for a high school building of brick and steel, to be erected here. Cost, about $150,000. William Lawson, Pres. Board of Trustees.

ROCHESTER, N. Y.—The University of Rochester will erect a building for laboratory of applied sciences 40 × 80 ft., 2-story, of reinforced concrete, brick veneer and architectural iron. Cost, $60,000. Rush Rhels, Pres., 440 University Ave. Whitfield & King are Archs., 160 Fifth Ave., New York.

WESTCHESTER (New York post-office), N. Y. We are officially advised that N. Sorracino, 1170 Broadway, New York, is preparing plans and specifications for a church and rectory to be built at the corner of Commonwealth Ave. and Mansion St., Westchester. Rev. H. De Vivo is the Rector.

NEWARK, N. J.—We are officially advised that the TURNER CONSTRUCTION CO., 11 Broadway, New York, has contract for a reinforced concrete warehouse, 100 × 50 ft., five stories and basement in height, for Hersh Bros., Mulberry St., Newark, N. J. Nathan Myers, Metropolitan Bldg., Newark, is Arch. Work is to be started at once.

JERSEY CITY, N. J.—Charles A. Rich, 320 Fifth Ave., Manhattan, has prepared plans for a 12-story brick, 100 × 80 ft., building at Hudson and York Sts., Jersey City, for Colgate & Co. Estimated cost, about $300,000.

PHILADELPHIA, PA.—The bids for the proposed 33-division school, to be erected at Ninth and Mifflin Sts., were opened on Aug. 3 by the Property Committee of the Board of Education, but because of the ambiguous specifications drawn by the Superintendent of buildings, the contract was not awarded. Bids were called for on seven specifications, and the Property Committee has not decided which to use. The bids on the general specifications as interpreted by the Superintendent were: David Peoples, Betz Bldg., $229,957; Lynch Bros., James and Pratt Sts., $237,826; Cramp & Co., Commonwealth Bldg., $239,679; Charles McCaul Co., Tenth and Sansom Sts., $243,495; Mitchell Bros., $243,653; James G. Doak & Co., $248,930; B. Ketchum & Son, 1029 Brown St., $249,531; Sax & Abbott Construction Co., $249,958.

The Taxi Service & Quaker City Cab Co. will tear down its present structure and erect a large garage and stable on the premises, 1207 Vine St. Claude S. Jarvis, who controls the concern, has awarded a $90,000 contract for the work to CHARLES W. DENNY, 1330 Arch St.

Six flat houses will be erected in West Philadelphia on Chestnut St., west of 45th St., by Samuel R. Edge, at a total cost of $105,000. The plans call for six 4-story brick buildings, each 25x84 ft., containing in all 24 housekeeping apartments. Each apartment consists of seven rooms, with a bath, and takes up an entire floor.

WINCHESTER, VA.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building at Winchester, Va., to GEORGE LEIGH & BRO., Louisa, Va., at $44,564.

ACCOMAC, VA.—We are officially advised that the PAULY JAIL BUILDING & MFG. CO., 2215 De Kalb St., St. Louis, Mo., has been awarded the contract to construct a jail for Accomac County. Work on foundations has been started. Plans by Milburn, Heister & Co., Home Life Bldg., Washington, D. C.

WINSTON-SALEM, N. C.—We are officially informed that the Wachovia National Bank has awarded the contract to the AMERICAN BRIDGE CO., 50 Church St., for the steel work for their new bank building. Milburn, Heister & Co. are Archs., Home Life Bldg., Washington, D. C.

ATLANTA, GA.—Donn Barber, Arch., 24 East 23d St., New York, has been commissioned by the Capital City Club, of Atlanta, to prepare plans for a new clubhouse to be erected at Peachtree and Harris Sts. Cost, about $150,000.

MONROE, LA.—The City Government has let contract for the erection of the proposed City-Hall, engine house and parish jail after plans by Milburn, Heister & Co., Home Life Bldg., Washington, D. C., to the SOUTHERN BUILDING CO., Louisville, Ky. The buildings, when completed, will cost $100,000.

BOWLING GREEN, KY.—Bids were received as follows by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Bowling Green, Ky.: Harry A. Bishop, Chicago, $116,000; Alfred Struck Co., Inc., Louisville, Ky., $120,000; Crist Kauzler & Son, Evansville, Ill., $112,000; John A. Curtis & Co., Philadelphia, Pa., $114,500; W. H. Fissell & Co., New York City, $115,234; John G. Unkefer & Co., Minerva, Ohio, $116,398; C. H. Smith, Bowling Green, Ky., $120,760.

COLUMBUS, OHIO.—The Columbus City Council has passed a franchise measure which requires the Ohio Electric Ry. Co. to construct a union station at Third and Rich Sts., Columbus. The building will cost, it is estimated, $175,000. Dana Stevens is Gen. Mgr., Traction Bldg., Cincinnati.

LEBANON, IND.—The Commissioners have selected the firm of Westcott & Ronneberg, 188 Madison St., Chicago, as Superv. Archs. and Engrs. for the proposed courthouse. J. T. Hutton, Arch., will complete plans and specifications on which bids will be asked at once.

GREENFIELD, IND.—The Commissioners of Hancock County will ask for bids soon for construction of an addition to the County Infirmary, including two new cottages.

TRAFALGAR, IND.—The School Trustees have decided to erect a new high school building on the site of the old building condemned by the Board of Health. S. A. Richardson is Chn.

PERU, IND.—The School Trustees have rejected all bids for the construction of a new high school building because the bids exceeded $100,000, the amount appropriated. New bids will be readvertised for at once.

CRAWFORDSVILLE, IND.—The contract for the completion of the Castle Hall building on Washington St. has been awarded to W. C. CARR & SON. The building will be made into a modern business and office building by the Indiana Insurance Co.

BELVIDERE, ILL.—Bids were received as follows on Aug. 9, by the Supervising Architect of the Treasury, Washington, D. C., for the construction of a post-office building at Belvidere: Charles W. Gindele Co., Chicago, $56,230; General Construction Co., Milwaukee, Wis., $54,790; Fancher & Driscoll, Canastota, N. Y., $65,942; G. G. Mafiolo & Son, Rockford, Ill., $46,872; R. McKenzie, Rockford, Ill., $48,265.

APPLETON, WIS.—The Post Master has been informed that James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has advanced the proposed new post-office and government building at Appleton, Wis., from No. 97 to No. 37, or six months, and plans will be completed about Sept. 15. Bids will be taken by Mr. Taylor about Oct. 2.

COUNCIL BLUFFS, IOWA.—Bids were received as follows on Aug. 3 by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office building at Council Bluffs, Iowa: Ambrose B. Stannard, St. James Bldg., New York, $132,379; General Construction Co., Milwaukee, Wis., $134,950; J. W. Miller, St. Paul, $125,983; Walter Petersen, Omaha, Neb., $147,800; King Lumber Co., Charlottesville, Va., $148,000.

ST. PAUL, MINN.—The contract for the excavation and foundation for the Shubert Theatre here has been awarded by Geo. Benz & Sons, owners, to CAMERON CO., Ryan Annex, city. Bids will be asked for at once on the general construction. Cost, $250,000. Marshall & Fox, 164 Dearborn St., Chicago, are Archs.

The following were the low bidders on the West Side high school. General contract, E. J. Daly, 38 West Lawson St., at $93,071; heating, Spriggs & Loeffelholz, city, at $12,884, and plumbing, Hanke & Eha, city, at $5,221. E. J. Donohue, Gilfillan Block, St. Paul, is Arch., and C. W. Gordon, Pres. of the Bd.

STILLWATER, MINN.—The State Board of Control, P. M. Ringdal, Chn., St. Paul, will soon receive bids for the construction of the following buildings at the state prison at Stillwater, Minn.: Chapel, guard house and enclosure walls, service building, hospital, administration building and cell houses. Cost, $1,500,000. C. H. Johnston, Manhattan Bldg., St. Paul, is Arch.

MANHATTAN, KAN.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Sept. 2, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Manhattan, Kan.

ST. LOUIS, MO.—The Rev. O. J. McDonald, Pastor of St. Ann's Roman Catholic Church, Page Ave. and Whittier St., has taken out a building permit to construct a church which will be completed by Dec. 1. The structure will cost $52,000. The church will be built of Bedford stone. The contract has been let to the HARTMANN BRICK & CONTRACTING CO. Barnett, Haynes & Barnett, Frisco Bldg., are Archs.

KANSAS CITY, MO.—The McCLINTIC-MARSHALL CO., Park Bldg., Pittsburg, Pa., has secured the contract for fabricating 13,000 tons of steel for the Kansas City terminal, which is to cost $200,000. The Carnegie Steel Co. probably will roll the shapes.

SAN ANGELO, TEX.—Bids will be received at the office of the Supervising Architect, Washington, D. C., for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring and standard clock system) of the U. S. Post Office and Court House at San Angelo, in accordance with the drawings and specifications, copies of which may be obtained from the custodian of site at San Angelo, or at the office of James Knox Taylor, Supervising Arch.

DALLAS, TEX.—A $100,000 passenger station is to built by the Atchison, Topeka & Santa Fe Ry. Co., it is stated, and it will be commenced within a few weeks. The structure will be substantial and ornate in design. Brick and plaster are to be used in the construction, and Spanish title will be the material for the roof. The building will front 264 ft. along the track and will be 45 × 47.8 ft. over all, with the ticket office near the center of the building on the Ave. B side. The building will be two full stories, except at the extreme ends. To the east of the main waiting room will be built toilet rooms separating the negro waiting room from the main waiting room. The ceiling of the main waiting room will be 20 ft. 4 ins. high. The second floor will be given over to the office of the superintendent, trainmaster, train dispatcher, etc. The entire building will be heated by an independent plant to be built south of the present tracks. The building itself will cost $74,000 and the train sheds, brick paving, etc., will cost $25,000. W. B. Storey, Jr., is Ch. Engr., Chicago, Ill.

CHEHALIS, WASH.—The date of opening bids for Pacific County court house has been extended from Aug. 7 to Aug. 20.

WALLA WALLA, WASH.—Albert Held, Arch., Hyde Block, Spokane, is drawing plans for a $40,000 Odd Fellows' Home, to be built here.

SEATTLE, WASH.—O. P. Oliver, 207 American Bank Bldg., has filed plans for a 2-story concrete apartment, to cost $60,000. E. E. Green is Arch., 318 Central Bldg.

Lydia A. Price, 904 American Bank Bldg., will erect a 3-story brick apartment to cost $50,000. F. M. Barnes is Arch., 459 Arcade Annex.

Work will start soon on the Seattle Electric Co.'s proposed office building, which will occupy a site at the southwest corner of Seventh Ave. and Olive St. The plans are being prepared by Gould & Champney, Archs., Arcade Bldg. Construction is to be commenced immediately and the building completed early in the winter. The structure is estimated to cost about $150,000.

PORTLAND, ORE.—The City Council is negotiating with C. R. Deburg for the purchase of property in this city for the proposed city jail and emergency hospital building.

The Depot Realty Co. will erect what will be known as the Depot Hotel, 100 × 200 ft., containing 150 rooms, at cost of $100,000. The structure will be of concrete and brick construction.

It is stated that $125,000 has been subscribed for a theater, that amount having been pledged by Portland citizens in subscribing for 6% bonds of the Helling Theater Co. E. C. Mears has charge of the financial arrangements. It is reported work will start within 30 days, the building to be fireproof.

Plans for the proposed 5-story court-house, to cost $800,000, have been completed. The court-house will be built a wing at a time, and separate bids will be asked on each wing. The east wing, the first part of the new structure to be constructed, will be 85 × 200 ft.

SAN FRANCISCO, CAL.—Plans are being prepared by Herbert B. Maggs, Arch., 233 Sansome St., for a 3-story brick Masonic Temple to be located at Franklin & Holland Ave. Cost, $60,000.

Plans are bing prepared in the City Architect's office for the Lakeview Primary School. Cost, $68,000.

Bids will be asked soon for the construction of the Sheridan Primary School to be erected on Point Lobos Ave., near Capital. Cost, $80,000.

Sexton & Nicholson, Archs., Chronicle Bldg., are preparing plans for a 3-story apartment house to be built on Ellis St., near Leavenworth St. Cost, $50,000.

Plans are being prepared by Arthur Lamb, 1515 Bush St., for an apartment house to be built at an approximate cost of $70,000.

Headlick & Thayer, Pacific Bldg., have prepared plans for a 4-story brick apartment house, to cost $40,000.

Plans are in the offices of H. Sawyer, Arch., Shreve Bldg., for a 6-story apartment building to cost $80,000. The owners are the Greene Estate Co.

SAN FRANCISCO, CAL.—James Knox Taylor, Supervising Arch. Treasury Dept., Washington, D. C., has awarded contract to AMBROSE B. STANNARD, St. James Bldg., New York, for the installation of partitions and screens in the San Francisco, Cal., court house, at $86,348.

SAN FRANCISCO, CAL.—The Native Sons of the Golden West Hall Association has applied for a permit to construct an 8-story, reinforced concrete building, to cost $185,500. The building is to be located at the site of the former hall in the east side of Mason St., near Geary St.

C. N. Felton has petitioned for a permit to erect an $85,000 5-story structure at the southeast corner of Brannan and Second Sts.

The plans and specifications for the new St. Francis Hospital have been completed by A. I. Coffey and estimates on the cost of construction are now being taken. It is the intention of the Board of Directors of the hospital to begin erecting the structure at an early date. The hospital will occupy a lot on the northeast corner of Bush and Hyde Sts., with a frontage of 95 ft. on Bush St. and 137½ ft. on Hyde St. The type of construction will be Class A and the building will have a high basement and five floors or stories, and sunrooms and roof garden on the roof. The exterior will be in light colored pressed brick with stone ornament in the trimming. In the basement will be power and boiler rooms, with air, ventilating, heating and refrigerating plants; laundry, storerooms, steam and various other kinds of baths and also apartments for the help. There will be accommodations for at least 100 patients. A residence for the nurses will be built apart on the Hyde St. side. The estimated cost is about $200,000. Dr. John Gallwey is Pres.; Dr. W. B. Coffey, Vice-Pres., and Dr. John O'Connor, Secy. of the institution.

SAN DIEGO, CAL.—A permit has been taken out by the Western Metal Supply Co. to build a storehouse on Seventh St., between K and L Sts. The building, which is to be 4-story with basement, will cost $60,000.

SALT LAKE CITY, UTAH.—Plans have been completed for a home to be erected on Tenth South and Twelfth East Sts. for homeless and dependent children. It will retain its name of the Orphans' Home and Day Nursery. The building will cost $50,000 when completed. The building committee consists of Mrs. A. J. Gorham, Mrs. M. M. Johnson and Mrs. Edwin Kimball.

SALT LAKE CITY, UTAH.—B. F. Redman is to erect a warehouse 100 × 200 ft. on Fourth West St., between First and Second South Sts., the building to cost $55,000 when completed.

John Douris, of this city, has taken out a permit for the erection of a 3-sty apartment house of 54 rooms, to cost $40,000.

NEW WESTMINSTER, B. C.—The Board of Management of Royal Columbia Hospital has appropriated $75,000 for the erection of a hospital building this year.

WATER SUPPLY—IRRIGATION.

(* *denotes that this work is advertised in Engineering News.*)

SOUTH PARIS, ME.—It is proposed to construct water-works here. Estimated cost, about $50,000. George R. Morton, of South Paris, is Engr.

ANDOVER, N. H.—The citizens of the Andover Village Precinct voted on July 30 to construct a gravity system of water-works. Estimated cost, about $18,000. John R. Eastman is Chn. Water Comrs.; Dudley & Sawyer, of Manchester, are Engrs.

*NEW BEDFORD, MASS.—Bids will be received by the Water Board, Robert C. P. Coggeshall, Supt., until 3 p. m., Aug. 17, for furnishing c.-i. water pipe and special castings. W. F. Williams is City Engr. Advertised last week.

*BOSTON, MASS.—Bids will be received by the Metropolitan Water and Sewerage Board, 1 Ashburton Pl., Boston, until 2.30 p. m., Aug. 16, for laying 8,100 lin. ft. of 60-in. water pipe in Boston and Newton. This work includes about 3,000 cu. yds. of rock excavation. Advertised last week.

PITTSFIELD, MASS.—ROY BARKER, Providence, R. I., has secured contract for sinking an artesian well on the Ashley reservoir water shed at $3,500.

SPRINGFIELD, MASS.—The Board of Water Commissioners has awarded contract for three test wells at the Fairview water system to F. A. CHAMPLIN, of East Longmeadow. The Board has voted to open bids for 412 tons of 4, 6, 8 and 10-in. pipe which will be used in the system, and the City Engineer has been instructed to draw up plans for a power and pumping station which will be started as soon as it is learned how large a one the system will require. The work of laying the pipes and water mains will start as soon as the contract has been awarded and it is expected that the system will be in operation before winter.

*HADLEY, MASS.—Bids will be received by theBoard of Water Commissioners, until 1 p. m., Aug. 21, for material for the extension of the present Hadley water supply district mains, requiring approximately 14,000 ft. of 6-in. and 2,700 ft. of 4-in. c.-i. pipe, together with necessary fittings, and for laying same, and also for construction of reservoir and dam, according to plans and specifications at the office of M. D. Patteson, 25 Main St., Northampton, Mass.

GARDNER, MASS.—Bids are asked until 2 p. m., Aug. 20, by the Gardner State Colony for constructing and erecting a steel standpipe 25 ft. in diameter and 8[illegible] ft. high, with conical roof, 20 ft. high, and for constructing a concrete foundation for the standpipe, and laying connections for the same, also laying about 1,000 feet of 8-in. and about 2,300 ft. of 6-in. c.-i. water pipe, with the necessary branches, valves, hydrants, blow offs and other appurtenances. H. K. Barrows is Engr., 6 Beacon St., Boston, Mass.

PROVIDENCE, R. I.—Press reports state that bids were opened as follows by the Board of Contract and Supply, Henry Fletcher, Mayor, Chn., on July 27 for furnishing and erecting complete a 10,000,000-gallon pumping engine: Westinghouse Machine Co., 701 Board of Trade Bldg., Boston, $15,250; Wilson-Snyder Mfg. Co., four bids, $16,600 to $18,000; DeLavel Steam Turbine Co., $15,570; Providence Engineering Works, Providence, $33,000; Allis-Chalmers Co., Milwaukee, Wis., two bids, $23,170 and $7,060; Camden Iron Works, two bids, $22,300 and $28,100; Henry R. Worthington, two bids, $24,000 and $15,500.

FARMINGTON, CONN.—The Farmington Water Co. has decided to lay a number of 10 and 6-in. mains, raise the dam and build two filter beds.

SYRACUSE, N. Y.—The Board of Contract and Supply on Aug. 2 awarded to CLINTON BECKWITH, Herkimer, N. Y., contract for constructing the proposed conduit to carry Skaneateles lake water across the southeasterly section of the city at $22,192.

Bids were opened on Aug. 2 by the Board of Contract and Supply for 765 tons of c.-i. pipe and 20 tons of castings. The only bid received was submitted by the U. S. Cast Iron Pipe & Foundry Co., 71 Broadway, New York, at $18,212.

NEW YORK, N. Y.—Bids are asked until 2 p. m., Aug. 18, by M. F. Loughman, Deputy and Acting Comr. Water Supply., Gas and Electricity, for furnishing all the labor and material required, and doing all the necessary work to remove well house, removing storehouse for constructing a gate vault and a receiving well and laying suction and filter delivery pipes at the Bayside pumping station, Broadway and Little Neck Bay, Bayside, Third Ward, Boro. Queens; for furnishing, delivering, erecting and connecting two pumping engines, with steam piping, suction and discharge piping, and all other appurtenances and appliances complete, in the Bayside pumping station, Broadway and Little Neck Bay, Bayside, Third Ward, Borough Queens; also for furnishing and delivering well driving machines, furnishing and delivering cast-iron pipe and special castings; furnishing, delivering and laying water mains in 120th, 160th, 161st, 162d, 163d, 164th, 167th, 168th, 169th, 179th, 207th, 215th Sts., and in Broadway, and furnishing, delivering, and laying water mains and appurtenances in Bay, Griffin and Arietta Sts., Columbia St., Stuyvesant Pl. and Richmond Terrace.

NIAGARA FALLS, N. Y.—Three bids were received as follows on July 29 by the Water Commissioners for the construction of the intake cribs and pipe line in connection with the new water supply system: Buffalo Dredging Co., D. S. Morgan Bldg., $74,650, 100 days; Read-Coddington Co., Niagara Falls, $75,796, 125 days; A. F. Chapman Co., $87,205, 150 days.

WEST CARTHAGE, N. Y.—Bids were received as follows on July 28 by the Board of Trustees for the construction of the water system: Charles R. Lewis, of Ilion, $8,693; O'Shea, Larkin & Eddy, of Utica, $9,638; Burns Bros. & Haley, of Watertown, $13,774; John J. Siegrist, of Utica, $10,218; W. J. Berrigan Contracting Co., of Little Falls, $10,917; Lehigh Contracting Co., of Warwick, $9,407; Snell & Barrett, of Dolgeville, $8,361.

*FORT H. G. WRIGHT, N. Y.—Bids are asked by Capt. Charles T. Baker, Constructing Q. M., U. S. A., New London, Conn., until 10 a. m., Aug. 30, for constructing approximately 1,300 lin. ft. of 6-in. water extension and approximately 2,485 lin. ft. of 6-in. sewer extension at Fort H. G. Wright.

*PERTH AMBOY, N. J.—Bids will be received at the office of the Board of Water Commissioners until 8.30 p. m., Sept. 1, for furnishing and erecting one 12,000,000-gallon pumping station, to be placed in the pump house at Runyon, N. J. Samuel J. Mason is Engr., 102 Smith St., Perth Amboy.

AUBURN, N. Y.—We are officially advised that the Water Board has determined, after an exhaustive research and report by Hazen & Whipple, Consulting Engrs., 103 Park Ave., New York, to build a slow sand filtration plant. Hazen & Whipple have been commissioned to draw the plans for same and upon completion of plans the Water Board will advertise for bids which will probably be late fall or early winter. J. Walter Ackerman, Supt. Bd., will be resident engineer and have charge of construction. Noted July 29.

BALTIMORE, MD.—Alfred M. Quick, Water Engr., is preparing plans for the construction of a 16-in. water main from Roland Ave. to York road by way of 39th St. Estimated cost, $40,000.

BALTIMORE, MD.—The Baltimore & Ohio R. R. Co. has awarded contract to EDWARD BRADY & SON to build a new fireproof pumping station at the Locust Point yards. Estimated cost, about $25,000. The building will be 42 by 55 ft., of concrete, brick and steel construction, with a slag roof. Plans for the building were made by M. A. Long, Arch., of the Baltimore & Ohio R. R. Co.

WALKERSVILLE, MD.—The Walkersville Water Co. has awarded contract to the McCAY ENGINEERING CO., 9 East Lexington St., Baltimore, for constructing water-works system. The work includes laying of pipe lines from reservoir to town through streets, setting of fire hydrants, etc. Estimated cost, $20,000.

*WASHINGTON, D. C.—Bids were received as follows by the Commissioners of the District of Columbia on Aug. 7, for 200 fire hydrants: A. P. Smith Mfg. Co., Newark, N. J., $34.74 each. Glamorgan Pipe & Foundry Co., Lynchburg, $34.20 each.

RUSSELLVILLE, ALA.—The city has granted a franchise to George K. Ames and George C. Thornton, under name of Thornton & Ames, Birmingham, Ala., to construct water-works and electric-light plant.

CLEVELAND, MISS.—The city has voted $15,000 of bonds for a system of water-works and fire protection.

RAYNE, LA.—The city has voted $5,000 of bonds for the extension of the water-works.

JELLICO, TENN.—The city voted $45,000 of bonds on July 21 for the construction of water-works. Preliminary surveys have been made for a gravity pipe system, the water to be secured from a mountain two miles distant, between which and city there is an estimated fall of 350 or 400 ft. Nine miles of piping will be laid. S. B. Snyder is Mayor.

KNOXVILLE, TENN.—The City Council voted on July 20 to purchase the Knoxville Water Co.'s plant for $1,250,000; S. D. Newton is City Engr.

NASHVILLE, TENN.—The city awarded contract on July 27 to CUNNIFF & STONE, of Nashville, at $11,251, to lay water pipe in 26 streets, aggregating 28,150 ft. of mains. Other bidders were: Curtis & Le Sueur, $13,000; J. A. Webb, $13,200; T. Y. Barnesfield, $16,995; William Leftwich, $11,670; Sullivan & Haggerty, $11,990; David Grewar Co., $15,414.

YOUNGSTOWN, OHIO.—Bids for iron pipe for the Water-Works Department were received by the Board of Public Service on July 24. The United States Cast Iron Pipe Co., 71 Broadway, New York, was low bidder at $23.50 per ton. Other bids were as follows: Dimmick Cast Iron Pipe Co., $24.60 per ton; Lynchburg Foundry Co., $23.85; the Massillon Iron & Steel Co., $24.

GRAND RAPIDS, MICH.—The Board of Public Works on July 29 opened bids for building the new pumping station: For the main building, the repair shop, connecting wall and foundations for the pumping engine and the electric lighting apparatus, the bids were: J. H. Sullivan, $108,126; Gentz Bros., $94,697; Hauser, Owen & Ames, $89,571.

JOLIET, ILL.—The lowest bid opened on July 19 by the Board of Public Improvements for constructing the Pleasant St. water and sewer mains was submitted, it is reported, by Robert Shannon, at $11,683.

PARK FALLS, WIS.—Bids will be received until Aug. 18 by the village for the construction of water-works. Estimated cost, $10,000. L. H. Clark, of Park Falls, is Engr.

GREENFIELD, IOWA.—Bids are asked by the city until 8 p. m., Aug. 23, for the following: Steel tower and tank, pump house, motor, pump, 50 hydrants, 150 ft. 10-in. pipe, 4,240 ft. 8-in. pipe, 3,500 ft. 6-in. pipe, 15,500 ft. 4-in. pipe, and 7½ tons of specials. George D. Musmaker is Mayor. Iowa Engineering Co., Clinton, Iowa, are Engrs.

BIWABIK, MINN.—Plans will be prepared by E. P. Burch, Engr., Minneapolis, for a 125,000-gallon water tank.

OSAGE CITY, KAN.—Contracts for water-works, bids for which were opened on July 27, have been let as follows: Pipe, SHEFFIELD C. I. PIPE & FDRY. CO., Sheffield, Ala., $24,120; hydrants, ENGLISH TOOL & SUPPLY CO., Kansas City, Mo., $2,171; filters, GREER FILTER MFG. CO., Pittsburg, Pa., $3,800; pumps and motors, DEAN STEAM PUMP CO., Kansas City, Mo., $4,780.

GREAT FALLS, MONT.—The Water Committee has recommended the extension of water mains in 36th St., Third Ave., 27th St. and First Ave. S.

MEXICO, MO.—Bids are asked until Aug. 20 by William H. Bryan, Consulting Engr., 315 Lincoln Trust Bldg., St. Louis, Mo., for improvements to the water-works here, including four centrifugal pumps, one 100,000-gallon elevated tank, and about 200 tons of 4 to 12-in. c.-i. pipe and specials.

PARAGOULD, ARK.—The city will install new machinery and otherwise improve the water-works system.

TEMPLE, TEX.—The Board of Water Commissioners has awarded contract for the vertical triple-expansion pump to be installed at the river station to the JOHN H. McGOWAN CO., of Cincinnati, Ohio, at $18,300.

TYLER, TEX.—The citizens have voted to issue $11,000 of bonds for water-works extension. John H. Bonner is Mayor.

BRYAN, TEX.—James C. Nagle, of the Texas Agricultural and Mechanical College, College Station, Tex., has been selected to prepare plans for water-works and sewers here.

EL PASO, TEX.—The N. M. Buckeye Engine Co. will install a pumping plant for pumping water to irrigate 4,400 acres of land, owned by the Farmers' Electric Light & Power Co.

MINCO, OKLA.—The city has voted $10,000 of bonds for the extension of water-works.

TALOGA, OKLA.—The city has voted $16,000 of bonds for the construction of water-works.

DELTA, COLO.—The City Council has decided to improve the water supply by piping up the creek above the reservoir near here to the Slide Rock, where a flow of water can be secured. A large concrete pressure basin will also be erected.

GREELEY, COLO.—A petition will be presented to the Commissioners of Larimer County to establish a new irrigation districtt of 6,000 acres on Oklahoma Hill, to receive water from Boyd Lake by centrifugal pumps. Part of the district will probably extend into Weld County.

KLAMATH FALLS, ORE.—W. H. MASON has been awarded contract for the construction of about ten miles of the main canal of the large irrigating system that the Oregon Valley Land Co. has to construct under its agreement with the home seekers. The system will bring under irrigation about 75,000 acres of land and will require the construction of a large dam and the creation of a storage reservoir of sufficient capacity to hold water enough to supply the demands of the ranchers during the dry season.

KAYSVILLE, UTAH.—The Commercial Club is agitating the construction of a water-works system for Kaysville. It is proposed to vote $25,000 of bonds for the work.

BELLEVUE, IDAHO.—Bids will be received by Francis Jones, City Clk., at the Bellevue State Bank, until Aug. 13, for the construction of a water system for the city, including the buildingg of a cement reservoir, excavating of trenches, laying of pipe and the refilling of trenches, the city to furnish all material used in the construction of the water system and reservoir.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

WEST POWNAL, ME.—Bids will be received until Sept. 1 by Dr. George S. Bliss, Supt. Main School for Feeble-Minded, West Pownal, for 1,685 ft. of 8-in. pipe sewer, manholes and settlement tank for the school. Arthur B. Fels is Engr., Oxford Bldg., Portland.

*PROVIDENCE, R. I.—Bids are asked by the Board of Contract and Supply until 2 p. m., Aug. 19, for the construction of sewers in various divisions of section No. 32, Woonasquatucket district, Providence sewer system. W. C. Pelkey is Clk. For details see advertisement in this issue.

DANIELSON, CONN.—Bids are asked until Aug. 15 by the town for constructing sewers in Furnace, Franklin and Dyer Sts., 20, 18, 15, 12, 10 and 8-in. pipe to be used. Wesley Wilson is Clk., Warden and Court of Burgesses.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., Aug. 26, for furnishing and delivering 30 c.-i. heads, including gratings, for sewer basins, and 30 c.-i. hoods or traps for sewer basins, to the shops of the Department of Parks, Boroughs of Brooklyn and Queens, at Seventh St. and Ninth Ave., Prospect Park, Boro Brooklyn.

BINGHAMTON, N. Y.—The Board of Contract and Supply on July 21 awarded contract for the construction of a sewer in Front St., Prospect Ave. and Franklin St., to C. A. WILLEY, at $10,955.

BROOKLYN, N. Y.—Bids are asked by Bird S. Coler, Boro. Pres., until 11 a. m., Aug. 18, for constructing sewers in various streets.

GATES, N. Y.—Bids are asked by M. J. Magin, Clk. Town Bd., at the office of W. R. Storey, Engr., 510 Ellwanger & Barry Bldg., Rochester, N. Y., until 2 p. m., Aug. 18, for the construction of a vitrified pipe sewer in Kossuth St. and branch in Smith St. in the town of Gates.

ROCHESTER, N. Y.—See item under Streets and Roads.

*FORT H. G. WRIGHT, N. Y.—See item under Water Supply-Irrigation.

FORT LEE, N. J.—The Council on July 29 awarded contract for the construction of the main trunk sewer to EDWARD P. O'NEIL, of Jersey City, N. J., at $17,330.

*WESTFIELD, N. J.—Bids are asked by the Council until 8.15 p. m., Aug. 30, for constructing sanitary sewers and appurtenances. Lloyd Thompson is Town Clk.

*BORDENTOWN, N. J.—Bids are asked by the President of the Board of Sewer Commissioners until 8 p. m., Aug. 27, for furnishing all work and materials necessary for the watertight and enduring construction, of each one separately or both together, of the two sections; which jointly comprise about nine miles of 8 to 15-in. pipe sewer, with branches and appurtenances, and a disposal works with all parts and connections, including sandfilters, sludge and flood basins, reinforced concrete chambers and contact beds. W. W. Young is Consulting Engr.

MOUNT OLIVER, PA.—The citizens voted on July 22 to issue $75,000 of bonds for the construction of a sewer system. W. McC. Donley, of Carrick, is Engr.

WILKES-BARRE, PA.—Bids will be received by Fred H. Gates, City Clk., until noon, Aug. 25, for constructing a 7-ft. circular brick or concrete sewer. B. K. Finch is City Engr.

STOWE, PA.—WILLAUER & CO., of Pottstown, have been awarded contract for the construction of a sewage disposal system at the Stanley G. Flass & Co. works.

SIVERLY (Oil City post-office), PA.—Bids were opened on July 24 by the Borough for the construction of storm and sanitary sewer system, from the plans of E. H. Pierce, Boro. Engr., 437 Chambers Bldg., Oil City. The contract has been awarded to THOMAS SWEENEY & CO., 4906 Cypress St., Pittsburg, at $14,613. Items prices were as follows: 10,017 cu. yds. earth excavation, 30 cts.; furnishing 20,220 ft. 6 to 36-in. vitrified pipe sewer, 5 cts. to $2.17, laying same, 11 to 32 cts. per lin. ft.; 13 oblong catch basins, each $35; 13 circular catch basins, each $18; 200 cu. yds. concrete, $4.70, etc. Other bids received were: J. H. Van Meter & Co., Steubenville, Ohio, $15,361; Boyd-Shaffer & Willis, Erie, $15,509; Northwestern Construction Co., Franklin, $16,532; City Cement Co., Meadville, $18,634; Maynard & Flynn, Pittsburg, $16,961; M. O. Herron & Co., Pittsburg, $15,528; George Waller & Co., West Pittsburg, $16,351; Kuhn & Applegate, Greensburg, $18,165; Corrigan & Mahoney, Jamestown, N. Y., $17,901; Westmoreland Construction Co., Greensburg, $20,702; J. P. Calahane, Jamestown, N. Y., $18,326; Sutley & Sutton, Franklin, $20,370; Amsler & Co., Franklin, $16,563; Lesher & Henderliter, Oil City, $19,001; Burns Bros., New Castle, $12,826 (portion of work); James McNamara, Dunkirk, N. Y., $14,781.

*BALTIMORE, MD.—Bids are asked by the Board of Awards until 11 a. m., Sept. 1, for constructing Forest Park sewage disposal works, Sanitary contract 40, trunk sewers in district No. 48, contract 41; Jones' Falls interceptor, Section 1, contract 42; lateral sewers in district No. 29, contract 43; storm water drains, contract 8. Harry W. Rodgers is Secy. For details see advertisiment in this issue.

GAINESVILLE, FLA.—Bids are asked until noon, Aug. 26, by the Board of Public Works for furnishing the material and constructing about 1,600 ft. of 8-in. sanitary sewer. W. W. Hampton is Secy.

ENSLEY, ALA.—C. M. BURKHALTER, Birmingham, Ala., has been awarded contract at $31,759 to construct sanitary sewers in West Ensley and Wylam. V. E. Ohl is City Engr.

MOBILE, ALA.—The city has awarded contract to JETT BROS., of Mobile, for constructing storm sewers here. Bids were opened on July 27. The work includes furnishing material and constructing 11,600 ft. of pipe sewers, 30 ins. to 10 ins. in diameter, 5,000 lin. ft. of 6-in. house connections, with manholes, catch-basins, inlets and other appurtenances. Wright Smith is Ch. Engr. Bd. Pub. Wks.

BROOKHAVEN, MISS.—The city is considering the construction of a sewer system. Estimated cost, with filtration tanks, $70,000.

BATESVILLE, MISS.—The city has engaged Xavier A. Kramer, Magnolia, Miss., to prepare plans and specifications and supervise the construction of a sewer system.

*LOUISVILLE, KY.—Bids will be received by the Commissioners of Sewerage, W. C. Nones, Chn., until Aug. 20 for the construction of Sec. C-3 of the Beargrass interceptor, Contract 43. J. B. F. Breed is Ch. Engr.; Harrison P. Eddy, 14 Beacon St., Boston, Mass., is Consulting Engr. Advertised last week.

Bids were opened on July 23 by the Commissioners of Sewers for constructing Sec. D of the Northwestern sewer, Contract 48. Contract has been awarded to F. G. MORTIMER, of Chicago, Ill., at $47,485. Noted last week as lowest bidder.

HAMILTON, OHIO.—L. A. Dillon, City Engr., has completed plans for main and sanitary sewers in the Third Ward. Estimated cost, $13,561.

WILLOUGHBY, OHIO.—Bids are asked until noon, Aug. 23, by the Council for furnishing the labor and material and constructing house and lot sewer connections prescribed by ordinance No. 330. C. C. Jenkins is Village Clk.

ASHTABULA, OHIO.—Bids will be received by the Board of Public Service until noon, Aug. 17, for furnishing the necessary labor and materials for the improvement of Depot and Ann Sts., from West St. to Prospect St., by constructing a sewer. A. J. Richardson is Clk.

CLEVELAND, OHIO.—JOHN WAGNER was awarded contracts by the Board of Public Service on July 30 for the building of two large intercepting sewers, which will involve a total cost of about $300,000. A contract was also awarded to WILLIAM LEHMAN for constructing a sewer at $47,000.

HAMILTON, OHIO.—Press reports state that the Bennett Construction Co., of Cincinnati, on Aug. 3 notified the Board of Public Service that it could not carry out its contract to construct the East Ave. storm sewer at its bid of $9,082. The board canceled the contract and awarded the work to LOUIS DRACH, of Cincinnati, at $9,195.

OXFORD, IND.—Charles Cottingham, of Danville, Ill., is preparing plans for the construction of a sewer system here. Estimated cost, $22,515.

GOSHEN, IND.—Bids are asked by George H. Rimpler, City Clk., until 7 p. m., Aug. 16, for the construction of a large sewer.

NASHVILLE, MICH.—Bids were opened on July 28 for the construction of a sewer system from plans of Riggs & Sherman, Consulting Engrs., Toledo, Ohio. The contract has been awarded to LOUIS JAGNAW, 106 Johnson St., Jackson, Mich., at $4,498. Other bids received were: Thomas Sampson, Mt. Pleasant, $5,526; E. S. Clark, Kalamazoo, $5,534; Shafer & Murphy, Big Rapids, $5,583; Pickett & Cowen, Grand Rapids, $5,871; J. H. Algate, Lansing, $5,980; E. M. Schreflow, Gary, Ind., $6,070; Chicago Dredging Construction Co., Chicago, Ill., $6,206; Callahan & Nickel, Trenton, $6,368; C. H. Kaumeier, 125 W. High St., Detroit, $7,129.

MARINETTE, WIS.—MULHOLLAND & SON, Appleton, Wis., have been awarded contract by the city at $4,873, for constructing 7,000 ft. of sewer.

BELOIT, WIS.—Bids are asked until 2 p. m., Aug. 20, by the city for 4,800 ft. of 8-in. and 834 ft. of 20-in. vitrified pipe, manholes, etc. Robert Caldwell is City Engr.

WATERLOO, IOWA.—The contract for the construction of the Dry Run sewer in the west side sewer district has been awarded to DEARBORN & JACKSON, of Cedar Rapids, at about $71,622. The work will include 8,100 ft. of sewer varying from 36 to 12-in. diameter.

IOWA CITY, IOWA.—Bids are asked by O. J. Slater, City Clk., until 2 p. m., Aug. 13, for constructing a sewer in several streets.

INTERNATIONAL FALLS, MINN.—Contract for constructing a sewer system has been awarded, it is stated, to ILSTRUP & OLSON, of Minneapolis, at $26,333.

ALLIANCE, NEB.—Bids were opened on July 22 by the city for the construction of a sewer system. Contract has been awarded to the INTERMOUNTAIN BRIDGE & CONSTRUCTION CO., of Tecumseh, Neb., as follows: 2,700 lin. ft. 18-in. vitrified pipe sewer, 95 cts.; 250 lin. ft. 18-in. c.-i. pipe sewer, $4; 2,210 lin. ft. 15-in. vitrified pipe sewer, 78 cts.; 8,280 lin. ft. 10-in. vitrified pipe sewer, $1.05; 380 lin. ft. 8-in. vitrified pipe sewer, 85 cts.; 328 vertical ft. brick manholes, $6; 8 cu. yds. concrete in piers, $9.50; grading, per cu. yd., 45 cts.; gravel, per cu. yd., $2.50; brick masonry, per cu. yd., $18; oak lumber, per M. in work, $60; pine lumber, per M. in work, $30; piling, per lin. ft., 45 cts. Total $16,350. Other bids were: William Fitch & Son Construction Co., Omaha, Neb., $17,333; Lytle Construction Co., Sioux City, Iowa, $16,703; Charles Thompson, Omaha, $17,644; Conrad Walker, North Platte, $18,451; Abel & Roberts, Lincoln, $16,527; C. R. Inman, Laramie, Wyo., $18,053; E. M. Eby, Wellington, Kan., $18,396; Matt & Bemis, Seward, $16,946; Fisher-Dempsey Construction Co., Pueblo, Colo., $17,471; M. A. Camery, Harlan, Iowa, $17,682. William Grant, 401 F. & M. Bldg., Lincoln, Neb., is Engr.

OKLAHOMA CITY, OKLA.—Bids will be received at the office of Bob Parman, City Clk., until 5 p. m., Aug. 16, for the construction of a sanitary lateral sewer in Block 25, Second Main St. addition, according to the plans and specifications now on file in his office.

NEWKIRK, OKLA.—Bids will be received by E. G. Davis, City Clk., until 4 p. m., Aug. 20, for a complete sanitary sewer system, to consist of about eight miles of 8-in. to 15-in. vitrified pipe. M. A. Earl & Co. are Engrs., Muskogee, Okla.

CHANDLER, OKLA.—We are officially advised that bids were opened as follows by the city on Aug. 3 for the construction of a sewer system: F. W. Roberts, Sapulpa, Okla., $18,329; J. W. Kelso, Iola, Kan., $18,068; W. W. Cook & Son, Wagoner, Okla, $17,685; Tulsa Engineering Co., Tulsa, Okla., $17,950; Starkey, Lee & Witt, Jury, Okla., $19,062; Herman Construction Co., St. Louis, Mo., $21,393; George Erickson, Ardmon, Okla., $20,110. Charles E. Cheney is City Engr.

PASADENA, CAL.—The City Council has adopted a resolution providing for the construction of sewers in Morton Ave., Fair Oaks Ave., Kenyon St. and Montana St.

CORONA, CAL.—H. Clay Kellogg, Engr., has prepared plans for the sewer system, storm drains, and other street work to be done in Corona, commencing about Sept. 1. Estimated cost, $135,000.

SAN FRANCISCO, CAL.—Contract has been awarded to the HEALY-TIBBITTS CONSTRUCTION CO., 268 Market St., San Francisco, for the construction of Section B of the Division St. sewer, at $144,275. Noted last week.

SAN FRANCISCO, CAL.—The Board of Public Works has received seven bids on sewer work planned for the University Mound and Silver Terrace district. The lowest was that of the Coast Construction Co., 517 Market St., at $82,750. Marsden Manson is City Engr.

TORONTO, ONT.—Bids are asked by Joseph Oliver, Chn. Bd. of Control, until noon, Aug. 17, for the construction of a sewer in High Park Gardens from Indian road 450 ft. west.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

HARTFORD, CONN.—Contracts for state road work, bids for which were opened at the office of the State Highway Commissioner on Aug. 31, have been awarded as follows: Town of Wilton, 11,467 lin. ft. gravel-telford, including three 24-in., three 20-in., four 15-in., five 18-in. and one 12-in. tile culverts, to JOHN F. KNAPP, Belden Hill, at $1.15 for gravel, $1.55 for telford, 25 cts. per lin. ft. for railing, $4.50 per cu. yd. for masonry. Town of Ridgefield (extension of foregoing), to same, at same prices. Town of Andover, 8,362 lin. ft. gravel-telford, including three 24-in. tile culverts, to AHERN BROS., Norwich, at $1.05 for gravel and $1.50 for telford. Town of Oxford, 7,310 lin. ft. gravel-telford, including one 12-in., four 15-in., two 18-in. and one 24-in. tile culverts, to E. G. PARDEE, Bethany, at $1.24 for gravel and $1.84 for telford. City of New Britain, 3,122 lin. ft. macadam-telford, to A. C. STERNBERG & SONS, West Hartford, at $1.25 for macadam and $1.87 for telford. Town of Hebron, eight sections gravel grading, aggregating 7,671 lin. ft., including two 20-in. and one 15-in. tile culverts, to A. E. DOUGLASS, Glastonbury, at $11,240. Town of Trumbull, 17,000 lin. ft. macadam-telford, including six 18-in., five 12-in. and six 15-in. tile culverts, to R. B. DAVIS, Hartford, at $1.56 for macadam, $2,20 for telford. Town of Monroe, 1,015 lin. ft. macadam-telford, including one 18-in. tile culvert, to R. B. DAVIS at $1.56 for macadam and $2.20 for telford. Town of Wilton, 7,850 lin. ft. gravel-telford, including two 24-in. tile culverts, to E. N. CLARK, Milford, at $1.49 for gravel and $1.99 for telford. Town of

Greenwich, 11,369 lin. ft. macadam-telford, including one 24-in. and one 15-in. tile culverts, to E. N. CLARK, Milford, at $1.90 for macadam and $2.40 for telford. All bids for work in the towns of Farmington and Burlington have been rejected.

SYRACUSE, N. Y.—The CENTRAL CITY PAVING CO., 213 Kirk Block, Syracuse, has secured the contract to pave with asphalt a portion of Orange St., at $27,600.

The following bids were received July 19 by the Board of Contract and Supply for paving Marcellus St.: (a) sandstone, (b) bitulithic, (c) brick or block, (d) asphalt, (e) with brick in railroad strips: Warner-Quinlan Asphalt Co., (a) $53,726; (a) $48,576; (b), $44,448; (b) $45,074; (c) $43,876; (d) $43,813; F. J. Baker, (b) $43,047; (b) $42,-690; (c) $40,476; (d) $42,318 and $41,086; Nicholas Marnell, (c) $41,756 and $41,091; Samuel Bonn, (c) $40,890; J. W. Bustin, (c) $39,755; Central City Paving Co., (c) $45,715; (c) $45,207; Gaffey & Burns (c) $39,338.

NEW YORK, N. Y.—Bids are asked by Allen N. Spooner, Comr. of Docks, until noon, Aug. 17, for furnishing all the labor and materials required for preparing for and laying iron slag block pavement on portions of the marginal street, between Whitehall and Broad Sts., East River, and granite block pavement between Albany and Liberty Sts., North River, and between West 30th and West 33d Sts., North River and for laying granite crosswalk along the southerly line of West 22d St., North River, Boro. Manhattan.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., Aug. 17, for paving with asphalt tiles certain walks of Central and other parks in the Boro. of Manhattan, City of New York.

NEW YORK, N. Y.—Bids were opened on July 22 by Louis F. Haffen, Pres. Bronx Boro., for paving with asphalt blocks and with granite blocks on a concrete foundation 176th St., from Arthur Ave. to the Southern Boulevard. The lowest bid was that of the Barber Asphalt Paving Co., 50 Church St., as follows: 6,050 sq. yds. asphalt block pavement and to keep same in repair for five years, $1.76; 1,372 cu. yds. concrete, including mortar bed, $6; 1,000 lin. ft. new curb, 90 cts.; 3,950 lin. ft. old curb, re-jointed, and reset in concrete, 30 cts., and 2,385 sq. yds. new granite block pavement on concrete foundation, with paving cement joints, $3. Total $28,120. The Hastings Pavement Co. bid for this work $28,273.

NEW YORK, N. Y.—Bids are asked by John F. Ahearn, Pres. Manhattan Boro., until 2 p. m., Aug. 23, for regulating and repaving with wood-block, sheet asphalt and granite block pavement on a concrete foundation the roadways of various streets; also for repaving sidewalk in northwest corner of 42d St. and Sixth Ave., and for maintaining asphalt pavement on several streets where original contracts have been abandoned.

*ALBANY, N. Y.—Bids are asked by the State Commission of Highways, Albany, until 1 p. m., Aug. 27, for the repair and resurfacing of highways in Monroe, Erie, Montgomery, Ulster, Westchester, Dutchess and Rockland Counties. S. Percy Hooper is Chn. For details see advertisement in this issue.

ALBANY, N. Y.—The bids received by the State Highway Commission on Aug. 6 for the repair and resurfacing of state highways were: Ontario County, Repair Contract No. 1, Bristol road No. 187, town of Canandaigua, Monroe Roads Co., Pittsford, N. Y., $16,032; John Johnson, 750 Abbott Road, Buffalo, N. Y., $6,625; THOMAS HUCKNALL, Albion, N. Y., $5,877 (awarded contract); Repair Contract No. 2, Bristol Valley road No. 188, towns of East Bloomfield and Bristol, MONROE ROADS CO., Pittsford, $16,870 (awarded contract); Thomas Hucknall, Albion, $17,142; Casey & Murray Powers Bldg., Rochester, N. Y., $18,885. Repair Contract No. 3, Honeoye-Hemlock Road No. 191, town of Richmond, CASEY & MURRAY, Powers Bldg., Rochester, $17,-900 (awarded contract); Thomas Hucknall, Albion, $17,465. Repair Contract No. 4, Geneva-Canandaigua road No. 207, Sec. 2, towns of Hopewell and Canandaigua, MONROE ROADS CO., Pittsford, $19,182 (awarded contract); John Johnson, 750 Abbot road, Buffalo, $19,970; Casey & Murray, Powers Bldg., Rochester, $22,690; Thomas Hucknall, Albion, $20,590. Repair Contract No. 5, Geneva-Canandaigua road No. 146, Sec. 1, town of Seneca, Barber Asphalt Paving Co., 131 Broad st, Utica, N. Y., $20,187; MONROE ROADS CO., Pittsford, $17,364 (awarded contract); Thomas Hucknall, Albion, $17,380. Chenango County, Repair Contract No. 6, Greene-Smithville road No. 218, towns of Greene and Smithville, and Oxford-McDonough road No. 224, towns of Oxford, Preston and McDonough, E. D. BAKER, 27 Broome St., Binghamton, N. Y., $11,809 (awarded contract); Newport Construction Co., Newport, N. Y., $14,699. Repair Contract No. 7, Norwich-Plymouth road No. 112, towns of Norwich and Plymouth, and Norwich-Preston road No. 598, towns of Norwich and Preston, Casey & Murray, Rochester, $20,240; Newport Construction Co., Newport, $19,572; E. D. BAKER, 27 Broome St., Binghamton, $16,451 (awarded contract). S. Percy Hooker is Chn Comn.

HORNELL, N. Y.—Bids were opened by the Board of Public Works on Aug 2 for grading, curbing and paving with vitrified brick or block on concrete foundation, Genesee St. Contract has been awarded to GRAY & MILLER, of Hornell, at $11,179. A. F. Bannon, Jr., is Supt. Pub. Wks.

ROCHESTER, N. Y.—The Board of Contract and Supply on July 30 let contracts to low bidders for the following public work: Jones St., brick paving, to WILLIAM H. SOURS, 43 Stillson St., $7,583; Filmore St., asphalt paving, ROCHESTER VULCANITE PAVEMENT CO., $11,988; University Ave., sewer, BRAYER & ALBAUGH, $7,945; Dickinson track sewers, walks and grading, JULIUS FRIEDERICK & CO., $10,163.

*FORT PLAIN, N. Y.—Bids are asked by the Board of Trustees, until 7.30 p. m., Aug. 20, for grading, paving and curbing Division St. The work consists of 1,494 sq. yds. vitrified brick paving; 422 sq. yds. wood block paving, 1,598 lin. ft. straight curbing, 122 lin. ft. curved curbing. Charles E. Perry is Engr., Canajoharie, N. Y.

*RED BANK, N. J.—Bids will be received until Aug. 23 by the Borough Council for paving with vitrified or shale brick portions of Front St. George D. Cooper, Red Bank, is Engr.; A. C. Harrison is Boro. Clk. Advertised last week.

PERTH AMBOY, N. J.—The BARRETT MFG. CO. has been awarded contract for 10,000 gallons of road preparation.

No bids were received on Aug. 2 by the City Council for the paving of Kearney Ave. with sheet asphalt. Wilbur La Roe is City Clk.

NEWARK, N. J.—Contracts for repaving portions of Rector St. and Nicholas St. with bitulithic have been awarded to the J. F. SHANLEY CO., 810 Union Bldg., at $7,579 and $7,393 respectively. M. R. Sherrerd is Ch. Eng. St. and Water Bd.

*RIDGEFIELD PARK, N. J.—Bids are asked by the Village Trustees until 8.30 p. m., Aug. 23, for grading, curbing and paving with Amiesite macadam and construction and erection of catch basins, manholes, etc. A. V. Morrison is Clk.

HOLLIDAYSBURG, PA.—Bids will be received until Aug. 13 by the State Highway Department, Harrisburg, Joseph W. Hunter, Comr., for constructing the following roads in Blair County: 1,561 ft. in Blair Township, 3,154 ft. in Allegheny Township and 3,756 ft. in Frankston Township.

PITTSBURG, PA.—Bids are asked until noon, Aug. 19, by R. J. Cunningham, County Controller, for the permanent improvement of two roads as follows: Lock 3 and Elkhorn rd., for a distance of 4.04 miles and Greenburg Pike No 2, for 4.12 miles. George T. Barnsley is County R. Engr.

Plans and specifications are being prepared by George T. Barnsley, County Rd. Engr., for the construction of several brick roads in Allegheny County.

NEW CASTLE, DEL.—The County Levy Court has awarded contract for building about 2½ miles of road from St. Ann's to Blackbird to THEOBOLD HARSH at $13,-183.70, and for the road from Christiana to Cooch's bridge to JOHN H. CLARK at $12,400.

BALTIMORE, MD.—The Highways Commission of the county has decided to award Contract for paving First Ave., Canton, from Clinton to Eighth St., to P. FLANIGAN & SON, 120 E. Lexington St., with vitrified brick on concrete, at $22,864, the lowest bid. Other bidders were P. Reddington, $23,232; F. E. Schneider Paving Co., $24,385; Nicol & Bro., $27,795.

State Roads Commission, John M. Tucker, Chn., Baltimore, has awarded contract to managers Springfield Asylum, Sykesville, Md., to construct 1½ miles of road in vicinity of hospital, and to McCORMICK & CO., 15 South Broad St., Philadelphia, Pa., 5¼ miles of macadam road in St. Mary's County at $10,000 per mile. The specifications provide for a road 12 ft. wide. Walter W. Crosby is Rd. Engr.

City has awarded contract to the F. E. SCHNEIDER PAVING CO., Law Bldg., at $77,213 for paving Edmondson Ave., from Second St. to Gwynn's Falls bridge with sheet asphalt. A 5 or 6-ft. fill is to be made near stone quarry and entire avenue is to be regraded. The sums of $222 for granite curbs is to be added to cost.

Bids are asked by the State Roads Commission, Baltimore, until noon, Aug. 16, for constructing six sections of state highway, aggregating about 20 miles in Baltimore, Howard, Queen Anne's, Washington and Montgomery Counties.

*WASHINGTON, D. C.—Bids are asked until noon, Aug. 14, by the District Commissioners for laying cement sidewalks in the district.

LANCASTER, VA.—The Lancaster County Board of Supervisors will construct a road from Kilmarnock to about one mile from Lancaster, a distance of eight or nine miles. Maurice Langhorne Appleton of State Highway Commission, Richmond, Va., has begun survey.

KENOVA, W. VA.—The city will award contract to IRONTON CONSTRUCTION CO., Ironton, Ohio, for constructing 28,254 sq. yds. of vitrified brick or block pavement, 19,100 lin. ft. concrete curb and gutter, 1,600 ft. margin curb, at $1.16 per sq. yd. for paving with Peebles block laid in cement, $1.26 for Peebles block laid in pitch; curb and gutters, 38 cts. per ft. W. B. Morris is Mayor.

WILSON, N. C.—Bids are asked by the Township Road Commission until Aug. 15 for constructing ten miles of macadam road. J. C. Hales is Secy.

LIBERTY, S. C.—Pickens and Oconee Counties are having surveys made by F. H. & J. G. Cunningham, Engrs., Greenville, S. C., for the construction of a road from Liberty to the Georgia line.

*GRIFFIN, GA.—Bids will be received by the Board of Mayor and Council until 1 p. m., Sept. 8, for grading, curbing and paving certain streets with either wood block, vitrified brick, granitoid, or bitulithic material. The work will embrace approximately the furnishing and setting 14,589 lin. ft. of granite curb, grading concrete foundations and surfacing 32,241 sq. yds. of pavement. Hazelhurst & Anderson are Engrs., Candler Bldg., Atlanta, Ga.

ATLANTA, GA.—The county has decided to pave Decatur St., between Younge St. and Delta Pl., with bitulithic pavement.

BRADENTOWN, FLA.—The city has awarded contract to W. A. COOK, Tampa, Fla., for street paving with vitrified brick and macadam. Estimated cost, $45,000.

MARION, FLA.—Perry County has decided to improve its roads.

MOBILE, ALA.—The city has awarded contract to BIGLER BROS., of Mobile, for curb and gutter.

MOBILE, ALA.—JETT BROS CO., 306 S. Water St., it is stated, has secured contract to pave Michigan Ave. at about $95,000.

NATCHITOCHES, LA.—The City Council has authorized graveling four miles of streets.

*LOUISVILLE, KY.—Board of Public Works on July 29, awarded contract to B. C. MILNER SONS CO., of Louisville at $21,-166, for paving three blocks of streets with creosoted wooden blocks, work including 2,430 cu. yds. excavation, 7,320 sq. yds. wood-block pavement and 1,300 ft. curbing. List of bidders noted on July 29.

AKRON, OHIO.—Bids were opened on July 27 by the Board of Public Service for street paving. The lowest bidders follow: Washington St., from Exchange St. to Voris st., Hunt & Wigley, $15,607; Kling St., from Exchange to Powers Sts., Wildes & Davidson, $7,125; Grand Ave., from Market St. to Portage Path, O'Neill & McCausland, $4,-957; Howard St., from the Cuyahoga River bridge to Olive St., Wildes & Davidson, $14,164; Bowery St., from Woster Ave. to Thornton St., E. McShaffrey & Son, $26,066; Payne Ave. from Beck Ave. to Dodge Ave., E. McShaffrey & Son, $3,141.

STEUBENVILLE, OHIO.—Bids are asked by the Jefferson County Commissioners until noon, Aug. 26, for grading, sewering and macadamizing the Bloomfield and Fairplay free turnpike road.

TOLEDO, OHIO.—Bids will be received until Aug. 24 by the Board County Commissioners for furnishing material, grading, curbing and paving with vitrified brick Detroit Ave., Washington Township. D. T. Davies, Jr., is County Audr.

TOLEDO, OHIO.—RUSSELL & TENNISON were awarded contract on Aug. 2 by the County Commissioners for the extension of Dorr St. with macadam through Adams and Springfield Townships at $20,970. Road will be three miles long.

COLUMBUS, OHIO.—We are officially advised that G. A. GIALDINI & CO., of Girard, Ohio, has been awarded contract by James C. Winders, State Highway Comr., for state highway E, Berlin Center road extension, Mahoning County, at $9,449.

YOUNGSTOWN, OHIO.—We are officially advised that all bids were rejected on July 29 by James C. Wonders, State Highway Comr., Columbus, for state highway D, Youngstown-Canfield road, as excessive. The bids were: G. A. Gialdini & Co., Girard, Ohio, $17,927; James Collocci, Youngstown, $20,-146; Fred L. Geiger, Warren, Ohio, $19,300. Estimated cost, $16,299.

SEBRING, OHIO.—We are officially advised that JOHN C. DEVINE of Alliance, Ohio, has been awarde contract by James C. Wonders, State Highway, Comr., Columbus, for state highway C, Sebring road, Mahoning County, at $21,545, for macadam, with brick road on concrete foundation, using Alliance block, at $21,545.

JEFFERSON, OHIO.—We are officially advised that the State Highway Department has awarded contract to CATLEY & GRIFFING, Cortland, Ohio, for state highway C, Jefferson-Southern road, Ashtabula County, at $11,490, tarvia binder. Bids were opened on Aug 3.

LAWRENCEBURG, IND.—The Dearborn County Commissioners have awarded contract for the construction of a gravel road in Kelso Township to HOLORAN & HAVERSTIEK, of Noblesville, at $18,446.

RICHMOND, IND.—The city has awarded contract to BOOTES & GANT, of Greenfield, for the construction of 19 blocks of cement sidewalks, curbs and gutters. Estimated cost, about $15,000.

DE PERE, WIS.—Bids are asked until 10 a. m., Aug. 19, by W. R. Mathews, City Clk., for grading and constructing concrete pavement and Portland cement combined curb and gutter.

MONTEZUMA, IOWA.—Bids are asked until 1.30 p. m., Aug. 16, readvertisement, by Fred Carr, Mayor, for constructing about 27,000 sq. yds. of brick block pavement and 1,000 sq. yds. of concrete pavement. All bids received on July 24 for this work were rejected. James Austin Moreland is Engr.

WASHINGTON, IOWA.—Plans and specifications are being prepared for paving South Iowa Ave. to the city limits. Wallace Treichles, Rock Island, Ill., is Engr.

*GRINNELL, IOWA.—Contract has been awarded to WILLIAM HORRABIN, Iowa City, Iowa, by the city for street improvements, including 92,000 yds. of Warren's bitulithic pavement laid on 5-in. concrete base and 53,000 ft. of combined concrete curb and gutter at $2.13 per yd. Bids were opened on July 26. A. C. Harriman is City Clk.

CEDAR RAPIDS, IOWA.—Bids will be received by the City Council until Aug. 16 for paving with brick block on a 4-in. concrete foundation, Fifth, Tenth and three other streets; also for constructing curbs on Sixth and Seventh Aves. and two other streets. L. J. Storey is City Clk.

ATLANTIC, IOWA.—Bids will be received until Aug. 16 for 23,000 sq. yds. brick paving and 7,600 lin. ft. combined curb and gutter. Chas. P. Chase, of Clinton, is Engr.

ST. PAUL, MINN.—We are officially advised that the BARBER ASPHALT PAVING CO., Park and Penn Aves., St. Paul, was awarded contract on Aug. 5 by the Board of Public Works for paving Wabasha St. with asphalt, five-year maintenance, at $12,700.

IOLA, KAN.—Contract for macadamizing a portion of North Central Ave. has been awarded to JOHN T. RUSHAMIER, of Chanute, at $5,515.

FORT ROBINSON, NEB.—Bids are asked by the Constructing Quartermaster, U. S. A., Fort Robinson, until 11 a. m., Aug. 14, for the construction of cement sidewalks.

ST. JOSEPH, MO.—Bids are asked until 11 a. m., Aug. 17, by the County Court, L. M. Stallard, County Engr., for constructing 8,300 ft. of 18-ft. wide macadam road.

PINE BLUFF, ARK.—Walk and Curb District No. 4 will lay walks and curbs on Cherry St. Estimated cost, $20,000.

WAXAHACHIE, TEX.—Precinct No. 1 of Ellis County has voted $...000 of bonds for road construction and Precinct No. 7 $75,-000 of bonds.

BELLINGHAM, WASH.—The contract for paving Eldridge Ave., with asphalt has been awarded to K. SAUSEL at $28,826, and 3 cts. per yd. for maintenance.

PUYALLUP, WASH.—The City Council on July 28 awarded contract for paving 17,-728 sq. yds. to the WARREN CONSTRUCTION CO., 314 Lumber Exchange, Portland, Ore., at $51,564.

OAKLAND, CAL.—Bids are asked until 10 a. m., Aug. 16, by John P. Cook, Clk. County Supervisors, for macadamizing 4,429 ft. of county road No. 4[illegible].

SACRAMENTO, CAL.—Bids will be received until Aug. 16 by M. J. Desmond, City Clk., for constructing an oiled macadam pavement on G St.

OGDEN, UTAH.—P. J. Moran, of Salt Lake City, Utah, who was awarded contract for paving with asphalt seven blocks by this city at $107,096 has given the P. J. O'NEILL CONSTRUCTION CO., of Ogden a sub-contract for all the work except laying the asphalt. The work is to start at once.

TORONTO, ONT.—Bids are asked by Joseph Oliver, Chn. Bd. of Control, until noon, April 17, for the construction of asphalt, bitulithic, concrete pavements, and concrete curbs and walks on various streets.

MANUFACTURING PLANTS.

(** denotes that this work is advertised in Engineering News.*)

HOLYOKE, MASS.—Plans are being drawn for the new office building which will be erected by the Judd Paper Co. on the recently bought property on Race St., Holyoke, Mass. The plans call for a 1-story brick buildingg, 50 × 75 ft.; and in the rear of the warehouse a 1-story brick building, 24 × 30 ft., will be erected for an automobile shed.

Press reports state that there will be a mill built on South Summer St., on transferred land from the Holyoke Water Power Co. to the Goetz Silk Co. Samuel McQuaid is connected with the latter company.

DANVERS, MASS.—Plans have been prepared for an addition to the plant of the A. T. Way Co., formerly the Kerans Tannery, at Danversport, Mass.

PROVIDENCE, R. I.—A permit has been issued by the Inspector of Buildings to the Colored Worsted Mill to erect a 1-story building, 34 ft. front by 100 ft. deep, and a 1-story addition, 38 × 99 ft., on land adjacent to the present mill on Pitman St. Both structures are to be of brick and will be used for manufacturing purposes. The work will be done by the W. A. CHAPMAN CO. Thomas Evans is the Arch.-in-Charge.

BRIDGEPORT, CONN.—C. T. Beardsley, Jr., Arch., has completed plans for an office building at the plant of the Pacific Iron Works on Housatonic Ave. It will be a brick structure, 30 × 40 ft., with a slag roof. A fireproof vault will be fitted up in one end of the building.

NEW BRITAIN, CONN.—The National Spring Bed Co. will construct, it is reported, a large factory, having recently purchased a tract of land between High and Washington Sts.

ROCHESTER, N. Y.—Application for a permit for the erection of an addition to the Utz & Dunn Shoe Co.'s factory on Canal St. has been filed with the Fire Marshal. The addition will consist of a building 58 ft. wide and 200 ft. in depth adjoining the present factory on the south. The building will be five stories in height and will be built of brick. Leon Stern is Arch., Chamber of Commerce Bldg., Rochester. The estimated cost of the building is $60,000.

SCHENECTADY, N. Y.—It is stated that the Climax Specialty Co., of Seneca Falls, N. Y., manufacturing plumbing supplies and employing 300 men, will locate in Schenectady. Jno. C. Davis, Pres.

RICHFIELD SPRINGS, N. Y.—It is the intention of the Walontha Textile Co., of Richfield Springs, N. Y., to erect an addition to its plant.

SYRACUSE, N. Y.—The Syracuse Safe Co. will build an addition to its plant, corner of Orange and Water Sts., 300 × 50 ft., one and two stories, structural steel and brick. Cost, $35,000. Taber & Baxter, O. C. S. Bank Bldg., are Archs.

TROY, N. Y.—Cluett, Peabody & Co., collar manufacturers, contemplate the erection of a large bleachery of brick. Until construction here. No details have yet been decided, and no architect has yet been selected to design the plans. It is said that the kind of building this concern will erect will approximate a cost of $300,000. E. Harold Cluett, of Troy, will have charge.

LONG ISLAND CITY, (L. I.), N. Y.—John F. Galvin, metal worker, 243 West St., Manhattan, contemplates the erection of a 6-story reinforced concrete, fireproof factory on the west side of East Ave., between 13th and 14th Sts., Long Island City. Cost, amout $150,-000. The building will measure 100 × 200 ft. The owners will occupy three of the floors, leasing the balance.

EAST ORANGE, N. J.—WILLIAM STEELE & SONS, 1600 Arch St., Philadelphia, have the contract for the construction of a plant in East Orange, N. J., for the A. P. Smith

Mfg. Co., Passaic Ave., Newark, N. J. The buildings will be of reinforced concrete, steel and brick, fireproof and will cost about $100,000.

NICETOWN (Philadelphia postoffice), PA.—WILLIAM STEELE & SONS, 1600 Arch St., Philadelphia, has the contract for the erection of a dryer building at the plant of George W. Blabon Co., 34 North Fifth St., in Nicetown, to replace the one destroyed by fire recently. It will be of reinforced concrete, fireproof, 75×200 ft. and 55 ft. high.

BIRDSBORO, PA.—The glove factory of James W. Sponagle, at Birdsboro, will be enlarged and machinery installed for manufacturing shirts.

PHILADELPHIA, PA.—Charles W. Miller, Commonwealth Bldg., announces that he has purchased for Samuel Y. Thompson the properties from 1027 to 1033 Callowhill St., upon which site a fireproof factory building will be erected. The price paid for the site was $30,000.

CONSHOHOCKEN, PA.—Plans have been posted by the Horace B. Deal Co. for the erection of a group of factory buildings at Conshohocken, Pa., for the J. Ellwood Lee Co. The structure will be 100×400 ft.

UNIVERSAL, PA.—Plans have been completed by the Universal Portland Cement Co. for a series of buildings, which are to be added to the plant at Universal, Pa., on the Union R. R. As originally designed the Universal plant was to have a capacity of 4,500 bbls. per day, but when the new section is in operation this will be raised to 10,000 bbls. In all, there will be four buildings erected, each of which will be of steel construction throughout, and to be more than twice the size of the old buildings. The second building is the stock house, the largest of the group. The other two buildings are the burner building and the raw material building.

LUKE, MD.—The West Virginia Pulp & Paper Co. has decided to erect a rag mill, it is stated, at its paper plant near Piedmont.

TERRA ALTA, W. VA.—The Terra Alta Woolen Mills Co. of Terra Alta has been incorporated by a number of Preston County business men, who will build and operate a plant at Terra Alta. The incorporators are William G. Brown, J. T. Dailey and L. M. Albright, of Kingwood, and J. N. McClanahan and M. N. Taylor, of Terra Alta. The certificate of incorporation has been issued by Stuart F. Reed, Secy. of State at Charleston. The company is capitalized at $25,000, of which $500 has been subscribed. A site has been secured for the plant and it is the intention of the backers of the company to put up the mill and start actual work just as soon as possible.

LINCOLNTON, N. C.—The Saxony Spinning Co. of this city has decided on plans for its mill building, which will be a 1-story 75×360-ft. structure. The company was incorporated lately with a capital stock of $100,000 by Edgar Love and associates. It will have an equipment of 10,000 spindles for yarn manufacture.

LOWNDESVILLE, S. C.—E. W. Harper and a number of other business men of Lowndesville, are planning the organization of a company to build a cotton factory. Cost, $125,000.

GREENWOOD, S. C.—The directors of the Grendel Mills have decided to increase the company's capital stock to $500,000 from $350,000, the proceeds of the issue is to be devoted to building a new mill at Greenwood with a capacity of 10,000 spindles and 250 looms. A. Foster McKissick, Pres. Grendel Mills, is also at the head of the Ninety-six Cotton Mill.

ARCADIA, S. C.—The Arcadia Mill, Arcadia, S. C., has completed arrangements for building its additional plant, which will represent the investment of about $225,000. The company will build a 105×255-ft. brick additon to its present building and will install 10,000 spindles, 250 looms, etc., for manufacturing sheeting. Contract for constructing the additional building has been awarded to the GALLIVAN BUILDING CO. of Greenville, S. C.

COLUMBUS, GA.—The Columbus Mfg. Co., on Aug. 3, awarded to T. C. THOMPSON & BROS., of Birmingham, a contract to build a $500,000 addition to its mill.

MANSFIELD, LA.—The De Sota Foundry & Machine Co. will erect an addition to its plant to cost approximately $50,000. Frank Kavanaugh is Supt.

MARIETTA, OHIO.—The A. T. Nye & Son Co. has purchased the property immediately adjoining its plant on Ohio and Muskingum Sts. for an addition to the foundry.

CINCINNATI, OHIO.—Improvements have been planned for the Crane & Breed Mfg. Co., of West Eighth St., by Elzner & Anderson, Archs., Ingalls Bldg. A building five stories high and 200 ft. long will be erected. It will be build on the site of a part of the Crane & Breed plant, on the south side of the street, east of McLean Ave. It will have a depth of 52 ft., being rectangular in shape. The building will have reinforced concrete floors, columns and beams, and will be fireproof.

SHEBOYGAN, WIS.—The Wisconsin Mirror Plate Co. of Fond du Lac, Wis., will remove its plant from that city to Sheboygan, it is reported, having secured a site adjacent to the American Folding Bed Works in the Lyman Addition.

MILWAUKEE, WIS.—The Milwaukee Aluminum & Brass Foundry Co. will erect a factory building at the northwest corner of Reed and South Pierce St. The building will be 30×140 ft. and will cost $8,000. Plans were prepared by F. Graf, Arch., Matthews Bldg., Milwaukee.

MARSHALLTOWN, IOWA.—A. Hagerty, of Peoria, Ill., is preparing plans for an alcohol plant which is to be erected here. Cost, $125,000.

MUSKOGEE, OKLA.—Alley Bros. & Co. will construct a packing and cold storage plant on land which has been acquired by the firm near the south limits of the city. The plant is to have a capacity of 50 cattle and 100 hogs a day, and is to be sanitary. A small ice plant will be run in connection with the plant to furnish ice for the storage. The plans show that the plant will cost about $12,000.

SPOKANE, WASH.—According to the Spokane Spokesman-Review," a sewer pipe and clay products plant is to be built on the Oregon R. R. & Navigation Co.'s tracks at the east city limits. William M. Colby, of Mason City, Iowa, is Pres. of the company; S. J. Boal, of Minneapolis, Secy.; T. L. Flemming, of Mason City, Vice-Pres.; W. R. Flemming, of Mason City, Treas., and F. B. McNeil, of Minneapolis, Supt. and Engr. Work has started on the survey of the ground for the buildings and actual construction will be under way in less than 30 days. It is expected to have the plant in operation by Jan. 1. Ten carloads of pipe a day will be the capacity of the plant when it is in full operation. It will be equipped for the making of all sizes and grades of sewer pipe and general clay products. About 100 men will be employed. Estimated cost, $300,000.

VANCOUVER, WASH.—The Building Inspector has issued a permit to A. R. Burnett to erect a grain elevator on the south side of False Creek. The plans call for a building 48 ft. square and 60 ft. high which would mean a grain capacity of 70,000 bushels. The plans have been prepared by Grant & Henderson and are based on solid construction of 2×6 material covered with corrugated iron. The estimated cost of the building is $10,000.

RENTON, WASH.—The Seattle, Renton & Southern Ry. Co., Seattle, Wash., has purchased ground in Renton, on which it shortly will begin the erection of car houses and shops.

BAKERSFIELD, CAL.—Plans for the proposed Rainier Brewery on Chester Ave. are being drawn and it is expected the contract for the brewery will be in soon. The brewery will cost, it is said, about $10,000, and when opened will be in charge of L. C. Ross, assisted by A. E. Hoagland, both of the city.

MISCELLANEOUS CONTRACTS.

(* *denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

CABLE.—Boston, Mass.—Bids are asked by Lieut.-Col. Edw. Burr, Corps Engrs., U. S. A., until Aug. 20, for electrical cable.

FIRE ENGINE.—Duluth, Minn.—Bids are asked until 2 p. m., Aug. 27, by the Board of Fire Commissioners for furnishing one steam fire engine, first-class.

*DREDGING.—Chicago, Ill.—Bids are asked until noon, Aug. 25, by the Sanitary District of Chicago for dredging work. For details see advertisement in this issue.

DREDGING.—San Francisco, Cal. — Bids are asked by Lieut.-Col. John Biddle, Corps Engrs., U. S. A., until noon, Aug. 23, for dredging Petaluma Creek, Cal.

*LIGHT-HOUSE.—Tompkinsville, N. Y.—Bids are asked by the Light-House Engineer, Tompkinsville, until 1 p. m., Sept. 3, for construction of the Lloyd Harbor light-house, Huntington Bay, N. Y.

LUMBER.—New York, N. Y.—Bids are asked by the Department of Docks and Ferries until noon, Aug. 17, for furnishing and delivering sawed new yellow pine lumber, sawed new spruce lumber and piles.

DITCH.—Harrisburg, Ark.—Bids are asked until Sept. 1st for the construction of 2,650,000 cu. yds. of ditch work in two districts. Estimated cost, 11 cts. per cu. yd. C. B. Bailey, Wynne, Ark., is Engr.

*STOREHOUSE.—Washington, D. C.—Bids are asked by the Light-House Engineer, Baltimore, Md., until noon, Aug. 30, for the construction of a storehouse on the lighthouse wharf at O and Water Sts., Washington, D. C.

LEVEE,—New Orleans, La.—Bids will be received until Aug. 30 by Capt. H. Burgess, Corps Engrs., U. S. A., 3338 St. Charles Ave., New Orleans, for constructing about 119,000 cu. yds. of new levee in the Lower Tensas Levee District.

DRAIN.—Waterloo, Iowa. — Contract for constructing an artificial channel or covered drain in Sewer District No. 2, has been awarded to the DEARBORN & JACKSON CO.,, of Cedar Rapids, Iowa, $71,600. Bids were received on July 26.

DREDGING.—Tiburon, Cal.—Bids will be received until 11 a. m., Sept. 4, at the Bureau Yards and Docks, Navy Dept., Washington, D. C., for dredging rock, mud, etc., at the naval station California City Point, Tiburon, Cal., as per Specification No. 1661. Estimated cost, $7,500.

DITCH.—Bancroft, Neb.—The Commissioners of Drainage District No. 1, Bancroft, have awarded contract for the construction of nine miles of drainage ditch to G. A. McWILLIAMS, of Walnut, Ill. Cost, $22,000. It will drain about 10,000 acres of land in the Logan River valley.

DITCH.—New York, N. Y.—Bids are asked by Dr. Thomas Darlington, Pres. Board of Health, until 10 a. m., Aug. 13, for furnishing all necessary labor and material required to excavate a ditch on the easterly margin of Mill Creek, 200 ft. east of Remson Ave., Flushing, Boro. of Queens.

TILE DRAIN.—Mason City, Iowa. — The Harman Engineering Co., Peoria, Ill., expects to put in from 12 miles to 20 miles of tile drain in September and October, 1909, near Mason City, Iowa, and the company desires to get in touch with tile drainage contractors, with and without teaming outfits.

DRAINAGE.—Arcadia, Tex.—Bids will be received by the Board of Commissioners of Drainage Dist. No. 1 until 3 p. m., Aug. 30, for excavating 450,000 cu. yds. of material and clearing and grubbing 67 acres of bayou timber. Capt. B. E. Johnson, Secy., Arcadia; R. W. Luttrel, Engr., Galveston, Tex.

SUBWAY STATION.—New York, N. Y.—The estimated cost of the proposed new subway station at 190th St. and St. Nicholas Ave. is $376,915. This includes two elevators with the machinery for operating them. The work will be done as an extra under the contract of JOHN B. McDONALD, 90 West St., New York.

BARGE CANAL.—Albany, N. Y.—The bids received by F. C. Stevens, Supt. Public Works, on Aug. 3, for Barge Canal Contract No. 53, providing for the construction of Lock No. 1 at Phoenix, were as follows: SCOTT BROS., Baldwinsville, N. Y., $166,735 (awarded contract); Northwestern Construction Co. and F. J. McCain Construction Co., Mercer, Pa., and Franklin, Pa., $180,935; Morris Kantrowitz, Albany, N. Y., $218,470; Coast & Interior Contracting Co., Fayetteville, N. Y., $173,975; The Snare & Triest Co., 143 Liberty St., New York, $187,748; Robert C. Storrie & Co., Philadelphia, Pa., $195,152.50; Merrill-Ruckaber Co., 50 Church St., New York, $189,558; American Pipe & Construction Co., 112 N. Broad St., Philadelphia, $181,126. Engineer's estimate, $200,500. Itemized bids will be given under Contract Prices next week.

(Continued on page 58.)

CONTRACT PRICES.

(* *denotes that this work is advertised in Engineering News.*)

*REPAVING.—Bayonne, N. J.—Bids were received on July 6 by the city for furnishing material and repaving Broadway, from First St. to Morris Canal bridge, about 78,200 sq. yds. Bids will be received on asphalt, bitulithic or bituminous concrete paving. F. W. Dalrymple is City Engr. Itemized bids were as follows: (A) Standard Asphalt & Rubber Co.; (B) W. T. S. CRITCHFIELD, New York (awarded contract); (C) Filbert Paving Co.; (D) Standard Bitulithic Co.; (E) Atlantic Bitulithic Co.; (F) J. F. Hill; (G) Warren R. Keith; (H) Warner-Quinlan Co.; (I) New Jersey Contracting Co.; (J) United Paving Co.

	(A)	(B)	(C)	(D)	(E)
Excavation, 78,000 cu. yds.	$0.15	$0.25	$0.17	$0.11	$0.20
Concrete, 3,500 cu. yds.	4.40	6.50	4.40	4.75	5.50
New blue stone curb, 6,300 lin. ft.	.48	1.00	.46	.58	.63
Curb reset, 22,000 lin. ft.	.18	.25	.17	.17	.19
Circular curb corners, 10, each	10.00	10.00	9.00	12.50	9.50
Bridge stone, relaid, 10,000	.12	.20	.15	.10	.09
New receiving basins, 10, each	35.00	100.00	35.00	35.00	45.00
10" sewer pipe, 250 lin. ft.	.70	2.50	.65	1.05	.90
Total	$35,909	$57,775	$37,400	$34,336	$44,669
Asphalt entire yardage, 78,000	1.24	1.05	.97	1.28	....
Total	$132,629	$139,675	$113,060	$134,176	....
Bitulithic concrete, entire yardage, 78,000	1.20	1.10	.79	....	....
Total	$129,509	$143,575	$99,020	....	....
Bitulithic, entire yardage, 78,000	....	1.40	....	1.77	1.76
Total	....	$166,975	....	$172,396	$181,946

	(F)	(G)	(H)	(I)	(J)
Excavation, 78,000 cu. yds.	$0.22	$0.11	$0.25	$0.10	$0.15
Concrete, 3,500 cu. yds.	4.25	4.50	3.90	4.65	6.00
New blue stone curb, 6,300 lin. ft.	.62	.62	.60	.80	.68
Curb reset, 22,000 lin. ft.	.25	.19	.20	.18	.05
Circular curb corners, 10, each	10.00	11.50	10.00	10.00	12.00
Bridge stone, relaid, 10,000	.12	.10	.12	.10	.10
New receiving basins, 10, each	45.00	39.00	50.00	40.00	40.00
10" sewer pipe, 250 lin. ft.	.50	1.15	.50	1.00	1.10
Total	$43,316	$34,208	$43,255	$33,565	$39,879
Asphalt entire yardage, 78,000	1.36	1.31	1.19	....	1.55
Total	$149,396	$136,388	$136,075	....	$160,779
Bitulithic concrete, entire yardage, 78,000	....	1.19	....	....	....
Total	....	$127,028	....	....	....
Bitulithic, entire yardage, 78,000	....	1.80	....	1.75	1.75
Total	....	$174,608	....	$170,065	$176,379

BREAKWATER.—Boston, Mass.—Two bids were received on Aug. 2 by Vernon V. Skinner, Comr. Penal Institutions Dept., 32 Tremont St., for constructing new breakwater at Deer Island. They were rejected as being in excess of the appropriation, which is $25,000. The bids were from W. H. Ellis, at $29,488, and John Cashman at $39,000.

*CHANNEL.—Boston, Mass.—Bids will be received until 2.30 p. m., Aug. 18, by the Charles River Basin Commission for excavating a channel about 4,500 ft. long in the Charles River, below Galen St., in Watertown, and for disposing of the materials by filling and grading an island and the banks of the river. For details see advertisement in this issue.

LEVEE, CULVERTS.—Dardanelle, Ark.—Bids are asked by the Commissioners of Levee District, No. 1, until noon, Aug. 16, for constructing approximately 35,000 cu. yds. of levee embankment; also for one large reinforced-concrete lock and dam and 10 reinforced-concrete culverts, varying in length from 50 to 100 ft. Thomas Boles, Ch. Engr., Ft. Smith, Ark.

LINING RESERVOIRS.—Seattle, Wash.—Bids in detail were received as follows on July 16 by the Board of Public Works for lining Green Lake reservoirs: (A) MacAdam & Co., Seattle, $224,029; (B) A. R. Gibson, Seattle, $164,164; (C) Ide & Jones, Green Lake station, Seattle, $193,362; (D) E. C. McDOUGALL, Lumber Exchange, Seattle, $130,979 (awarded contract); (E) Grant Smith & Co., Portland, Ore., $258,148; (F) International Contract Co., 501 Central Bldg., Seattle, $204,290; (G) Independent Asphalt Paving Co., Theater Bldg., Seattle, $230,225; (H) Sparger Concrete Co., Colman Block, Seattle, $216,689; (I) Chamberlain Construction Co., Seattle, $105,630; (J) Hans Pedersen, Alaska Bldg., Seattle, $217,001; (K) Ferro-Concrete Construction Co., Seattle, $255,619.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
Green Lake Low Service.											
9,500 cu. yds. concrete lining, 1" to 8"	$11.00	$7.86	$9.37	$6.35	$12.65	$9.58	$11.15	$9.85	$10.35	$10.55	$12.10
44,000 sq. yds. Sylvester wash	.05	.05	.01	.01	.05	.13	.04	.12	.56	.03	.03
2,000 sq. yds. redressing slopes	.10	.15	.25	.08	.25	.50	.20	.20	.11	.10	.10
200 cu. yds. refilling	.40	1.25	.20	.50	2.00	1.00	1.50	1.50	1.67	1.00	.20
800 cu. yds. excavation	.50	1.00	1.50	.65	1.00	.50	1.75	1.25	1.00	1.00	.50
200 lin. ft. double 3" sewer pipe drain	.60	.20	.25	.30	1.00	.50	.60	.75	.75	.75	.75
200 lin. ft. single 3" sewer pipe drain	.35	.10	.20	.15	.85	.40	.50	.65	.62½	.65	.62
1 Landing	50.00	250.00	100.00	25.00	60.00	116.00	200.00	350.00	73.00	75.00	90.00
500 lbs. reinforcing steel	.06	.06	.05	.07	.08	.07	.06	.10	.04½	.05	.05
2,500 lbs. special castings	.10	.15	.11	.14	.15	.08	.10	.12	.11	.10	.12
1 12" gate	60.00	60.00	100.00	35.00	45.60	50.00	75.00	60.00	66.60	55.00	75.00
2,500 sq. yds. concrete walks	1.15	1.00	1.20	1.10	1.10	1.00	1.25	1.25	1.13	1.10	1.35
12 lin. ft. 24" c.-i. pipe	3.50	3.00	6.00	4.00	7.00	6.00	7.50	4.50	15.00	4.00	10.50
200 cu. yds concrete filling	7.00	6.00	7.00	5.00	8.00	7.00	10.00	7.50	7.71	6.00	7.92
Green Lake Intermediate Service											
9,500 cu. yds. concrete lining, 1" to 8"	11.00	7.86	9.57	6.35	12.65	9.58	11.15	10.35	....	10.80	13.17
44,000 sq. yds. Sylvester wash	.05	.05	.01	.01	.05	.13	.04	.12	....	.03	.03
200 sq. yds. redressing slopes	.10	.15	.25	.08	.25	.50	.20	.20	....	.10	.10
50 cu. yds. refilling	.40	1.25	.20	.50	2.00	1.00	1.50	1.50	....	1.00	.20
800 cu. yds. excavation	.50	1.00	1.50	.65	1.00	.50	1.75	1.25	....	1.00	.50
1,000 lin. ft. double 3" sewer pipe drain	.60	.20	.90	.30	1.00	.50	.60	.80	....	.75	.80
1,000 lin. ft. single 3" sewer pipe drain	.35	.10	.80	.15	.85	.40	.50	.70	....	.65	.67
1 landing	50.00	250.00	100.00	25.00	60.00	116.00	200.00	350.00	....	75.00	90.00
500 lbs. reinforcing steel	.06	.06	.05	.07	.08	.07	.06	.10	....	.05	.05
1,300 lbs. special castings	.10	.15	.11	.14	.15	.08	.10	.12	....	.10	.12
1 12" gate	60.00	60.00	100.00	35.00	45.00	50.00	75.00	60.00	....	55.00	75.00
2,500 sq. yds. concrete walks	1.20	1.00	1.20	1.10	1.10	1.00	1.25	1.25	....	1.10	1.45
12 lin. ft. 24" c.-i. pipe	3.50	3.00	6.00	4.00	7.00	6.00	7.00	4.50	....	4.00	10.50
50 cu. yds. concrete filling	7.00	6.00	7.00	5.00	8.00	7.00	10.00	8.00	....	6.00	8.56
Total	$224,029	$164,164	$193,362	$130,979	$258,148	$204,290	$230,225	$216,689	$105,630	$217,001	$255,619

*SEWERS.—Albuquerque, N. Mex.—Bids were received at the office of John B. McManus, City Clk., on July 10 for constructing sewers in Albuquerque. Proposals were also considered on a cost-plus-a-percentage basis in which the city furnishes all the material. Samuel M. Gray, Providence, R. I., is Engr. The itemized bids were as follows: (A) Hamilton Bros. Construction Co.; (B) Municipal Engineering & Contracting Co., Chicago; (C) GLASS & FISCHER, Bakersfield, Cal. (awarded contract); (D) Dearborn Jackson Construction Co.; (E) A. L. Patterson; (F) S. M. Kerns; (G) Proposal No. 3, cost-plus-a-fixed-sum, by the Municipal Engineering & Contracting Co.; cost, plus $50,000.

Item	(A)	(B)	(C)	(D)	(E)	(F)	(G)
10,125 ft. 8" Vit. sewer pipe, 6 to 8 ft. cut	$0.24	$0.58	$0.58	$0.55	$0.34	$0.34	$0.44
12,580 ft. 8" Vit. sewer pipe, 8 to 10 ft. cut	.32	.74	.72	.70	.46	.39	.55
6,460 ft. 8" Vit. sewer pipe, 10 to 12 ft. cut	.61	.89	.94	.80	.66	.49	.66
1,560 ft. 8" Vit. sewer pipe, 12 to 15 ft. cut	.81	1.14	1.23	1.10	1.04	.74	.85
1,950 ft. 10" Vit. sewer pipe, 6 to 10 ft. cut	.32	.68	1.14	.65	.57	.39	.51
940 ft. 10" Vit. sewer pipe, 10 to 14 ft. cut	.81	1.06	1.22	1.15	.86	.60	.80
180 ft. 10" Vit. sewer pipe, relaid	1.25	1.13	.80	1.15	.86	.60	.85
1,900 ft. 12" Vit. sewer pipe, 6 to 8 ft. cut	.32	.61	.82	.65	.50	.50	.46
695 ft. 18" Vit. sewer pipe, 6 to 10 ft. cut	.41	.93	1.32	1.00	.85	.70	.73
590 ft. 18" Vit. sewer pipe, 10 to 12 ft. cut	.66	1.12	1.67	1.50	1.19	.90	.86
240 ft. 18" Vit. sewer pipe, 12 to 16 ft. cut	.96	1.43	2.23	2.00	2.12	1.40	1.13
1,025 ft. 20" Vit. sewer pipe, 6 to 10 ft. cut		.93	1.57	1.40		.90	.73
1,025 ft. 20" reinforced concrete	.46	1.15	2.35	1.35	.75	.90	.45
1,025 ft. 20" monolithic concrete	.46	1.52	2.18	1.30	.75	1.70	.99
755 ft. 20" Vit. sewer pipe, 10 to 12 ft. cut	....	1.20	1.72	1.55	....	1.06	.93
755 ft. 20" reinforced concrete	.76	1.91	2.37	1.70	1.00	1.10	1.65
755 ft. 20" monolithic concrete	.76	1.74	2.19	2.40	1.20	2.00	1.20
345 ft. 20" Vit. sewer pipe, 12 to 14 ft. cut	....	1.46	2.04	1.65	....	1.35	1.15
345 ft. 20" reinforced concrete	1.11	2.19	2.79	2.50	1.50	1.50	1.87
345 ft. 20" monolithic concrete	1.11	2.07	2.59	2.40	1.90	2.40	1.43
620 ft. 20" Vit. sewer pipe, 14 to 16 ft. cut	....	2.18	2.26	2.30	....	2.25	1.74
620 ft. 20" reinforced concrete	1.61	2.89	3.19	3.15	2.90	2.35	2.46
620 ft. 20" monolithic concrete	1.61	2.80	3.00	3.10	3.30	3.10	2.03
600 ft. 20" Vit. sewer pipe, 16 to 18 ft. cut	....	2.80	2.95	2.30	....	2.75	2.25
600 ft. 20" reinforced concrete	2.01	3.50	3.56	3.40	3.30	2.85	2.97
600 ft. 20" monolithic concrete	2.01	3.43	3.44	3.40	3.60	3.70	2.55
1,280 ft. 24" Vit. sewer pipe (see profile)	....	1.30	2.22	1.50	....	1.33	1.03
1,280 ft. 24" reinforced concrete	2.01	2.28	3.16	2.30	1.30	1.40	2.04
1,280 ft. 24" monolithic concrete	2.01	2.13	2.95	2.25	1.50	2.00	1.40
1,280 ft. 24" brick sewers	....	2.57	....	3.00	....	3.00	1.91
3,050 ft. 30" reinforced concrete	....	2.71	4.26	3.00	....	2.20	2.37
3,050 ft. 30" monolithic concrete	1.71	2.52	3.90	2.90	1.64	3.50	1.67
3,050 ft. 30" brick sewers	....	2.81	6.00	3.25	....	3.00	2.14
2,270 ft. 42" monolithic concrete	4.26	3.47	3.52	3.50	3.30	2.00	2.22
2,270 ft. 42" brick sewers	....	....	....	....	....	4.00	....
1,400 cu. yds. embankment over 30" and 42" pipe	.50	.40	.45	.75	.50	.30	.34
Concrete outlet and siphon	175.00	185.00	235.00	250.00	400.00	300.00	115.00
115 concrete manholes	30.00	27.74	35.00	40.00	37.00	37.00	14.54
115 brick manholes	30.00	20.72	40.00	40.00	30.00	25.00	....
22 concrete flush tanks	35.00	46.29	70.00	90.00	58.00	40.00	24.61
22 brick flush tanks	35.00	51.96	100.00	85.00	33.00	....	....
50 cu. yds. concrete	6.00	3.65	5.25	10.00	4.25	6.00	1.24
200 concrete piles	10.00	7.44	11.00	25.00	10.00	12.00	4.68
30 M. ft. B. M. lumber	10.00	10.97	25.00	15.00	40.00	25.00	9.97
30,895 ft. 8" Vit. sewer pipe, 6 to 8 ft. cut	.24	.66	.65	.60	.60	.39	.48
23,050 ft. 8" Vit. sewer pipe, 8 to 10 ft. cut	.32	1.18	.77	1.05	.85	.74	.90
17,690 ft. 8" Vit. sewer pipe, 10 to 14 ft. cut	.81	1.82	1.22	1.80	2.00	1.64	1.43
1,330 ft. 10" Vit. sewer pipe, 6 to 8 ft. cut	.29	.79	.82	.60	.66	.55	.59
90 ft. 10" Vit. sewer pipe, 8 to 10 ft. cut	.41	1.22	.90	.95	.86	.93	.90
1,960 ft. 10" Vit. sewer pipe, 10 to 14 ft. cut	.91	1.83	1.38	2.20	2.00	1.93	1.44
165 ft. 12" Vit. sewer pipe, 8 to 10 ft. cut	.41	1.21	1.05	1.35	1.00	1.14	.94
1,385 ft. 12" Vit. sewer pipe, 10 to 12 ft. cut	.65	1.64	1.31	1.85	1.65	1.14	1.28
1,290 ft. 15" Vit. sewer pipe, 6 to 8 ft. cut	.35	.76	1.12	.90	.85	1.36	.56
330 ft. 15" Vit. sewer pipe, 8 to 10 ft. cut	.41	.29	1.30	1.65	1.10	2.00	1.01
1,090 ft. 15" Vit. sewer pipe, 10 to 14 ft. cut	.91	1.97	1.92	2.90	2.85	3.00	1.55
3,880 ft. 18" Vit. sewer pipe, 6 to 9 ft. cut	.41	1.07	1.40	1.85	1.10	1.57	.83
1,330 ft. 18" Vit. sewer pipe, 9 to 12 ft. cut	.61	1.65	1.75	3.35	2.50	3.41	1.30
2,190 ft. 20" Vit. sewer pipe, 10 to 12 ft. cut	.86	1.92	1.92	3.50	2.65	5.12	1.53
2,190 ft. 20" reinforced concrete, 10 to 12 ft. cut	.86	2.63	2.61	4.40	2.70	5.12	2.25
2,190 ft. 20" monolithic concrete, 10 to 12 ft. cut	....	2.51	2.60	5.90	....	6.00	1.80
945 ft. 24" Vit. sewer pipe, 12 to 14 ft. cut	2.01	2.55	2.90	4.90	3.10	9.46	2.04
945 ft. 24" reinforced concrete, 12 to 14 ft. cut	2.01	3.57	3.81	5.80	3.25	9.67	3.08
945 ft. 24" monolithic concrete, 12 to 14 ft. cut	....	3.45	3.80	7.30	....	10.50	2.49
945 ft. 24" brick	....	4.08	4.00	5.00	....	....	3.03
545 ft. 30" reinforced concrete, 5 to 6 ft. cut	1.41	2.32	3.49	2.70	1.00	2.20	2.12
545 ft. 30" monolithic concrete, 5 to 6 ft. cut	....	2.09	3.48	5.70	1.00	3.25	1.80
545 ft. 30" brick concrete, 5 to 6 ft. cut	....	2.12	6.00	4.50	....	....	1.37
2,925 ft. 30" reinforced concrete, 10 to 14 ft. cut	2.11	3.96	4.19	7.20	3.70	10.50	3.47
2,925 ft. 30" monolithic concrete, 10 to 14 ft. cut	....	3.83	4.00	8.70	3.70	11.70	2.47
2,925 ft. 30" brick	....	4.05	8.00	6.00	....	....	2.97
3,795 ft. 36" reinforced concrete, 12 to 15 ft. cut	3.61	5.00	5.62	9.60	6.00	16.47	4.39
3,795 ft. 36" monolithic concrete, 12 to 15 ft. cut	....	4.83	5.60	11.60	6.00	18.00	3.46
3,795 ft. 36" brick	....	4.96	10.00	8.00	....	....	3.64
270 concrete manholes	30.00	32.80	35.00	45.00	37.00	90.00	18.94
270 brick manholes	30.00	25.28	40.00	45.00	30.00	....	18.94
70 concrete flush tanks	35.00	51.35	70.00	95.00	58.00	40.00	29.01
70 brick flush tanks	35.00	57.02	100.00	90.00	33.00	....	41.69
200 cu. yds. excavation	.50	2.09	.65	2.00	1.75	5.00	1.61
60 cu. yds. reinforced concrete	14.00	10.55	9.50	12.50	11.75	16.00	6.85
40 cu. yds. concrete	6.00	3.65	5.25	8.00	4.25	3.50	1.24
60 M. ft. B. M. lumber	10.00	10.97	25.00	20.00	40.00	25.00	9.97
PUMPING STATION.							
400 cu. yds. excavation	.50	2.09	1.50	2.00	1.50	5.00	1.61
20 cu. yds. plain concrete	6.00	3.65	5.25	7.00	5.25	3.75	1.24
200 cu. yds. reinforced concrete	13.00	7.00	17.50	12.50	11.75	17.50	3.23
Superstructure	700.00	825.00	1,200.00	2,000.00	5,250.00	600.00	450.00
60 M. ft. B. M. lumber	10.00	10.97	30.00	10.00	30.00	2.50	9.97
Vit. sewer pipe up to 24", balance reinforced concrete	$120,914	$216,333	$214,079	$268,825	$199,966	$280,822	$161,295
Vit. sewer pipe up to 18", balance reinforced concrete	$120,914	$222,492	$220,145	271,212	201,194	281,314	167,458
Vit. sewer pipe up to 18", balance monolithic concrete	No bid	$219,831	$217,541	305,055	203,606	301,432	155,452
Vit. sewer pipe up to 20", balance brick	$120,914	$217,531	$254,245	262,541	205,211	284,020	158,826

MISCELLANEOUS CONTRACTS.

(Continued from page 57.)

DREDGING.—Portland, Ind.—Bids will be received by the Board of Commissioners of Jay County, Portland, until 2 p. m., Aug. 17 (readvertisement), for dredging 11 miles of the Salamonie River, from Pennville to the Matamoras bridge, near Montpelier. Estimated cost, $80,000. Bids were received for this work on July 27, as follows, and rejected: F. P. Wade, Geneva, $82,250; D. H. Yeoman, Rensselaer, $82,250; C. H. Sternberg & Sons, Chicago, Ill., $86,000, and Ed. Bodette, of Toledo, Ohio, $79,950.

DITCHES.—St. Paul, Minn.—The State Drainage Commission, S. G. Iverson, Audr., has awarded the following state drainage ditch contracts: Ditch No. 85, Kittson County, to O. F. DOYLE, St. Cloud, Minn., at 8.24 cts. per cu. yd.; 92,477 yds. to be excavated. Ditch No. 83, Marshall County, to FORRESTAL & FEYEN, St. Pauls, Minn., at 6.87 cts. cu. yd.; 900,000 cu. yds. to be excavated. Ditch No. 61, Polk County, to O. F. DOYLE, at 7.94 cts.; 285,000 cu. yds. Ditch No. 69, Roseau County, to FORRESTAL & FEYEN, at 7.89 cts.; 677,776 cu. yds. Ditch No. 82, to JOHN KOHLER, Frazee, Minn., at 11.2 cts.; 70,032 cu. yds.

EXAMINATIONS.

ENGINEERS.—Chicago, Ill.—The Navy Department announces an examination of applicants at the Federal Building, Chicago, on Aug. 24, for the purpose of filling the positions of Engineer-in-Charge of Power Plant, at $5.04 a day, and Assistant Engineer, at $4 a day, at the U. S. Naval Training Station, Great Lakes. Detailed information concerning the examination is contained in Examination Order No. 34, a copy of which is on file at office of Engineering News, New York.

ASSISTANT INSPECTOR.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Aug. 25-26 to secure eligibles from which to make certification to fill a vacancy in the position of Assistant Inspector of electric light plants in the office of the Secretary of the Treasury, at $1,800 a year, and vacancies requiring similar qualifications as they may occur in the Treasury Department, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer or promotion. Age limit, 20 years. Application form 1312.

ARCHITECTURAL DRAFTSMAN.—Philippines.—The U. S. Civil Service Commission announces an examination on Aug. 18 to secure eligibles from which to make certification to the position of Architectural Draftsman, in the Philippine Service at Manila, at salaries ranging from $1,800 to $2,250 a year. It is desired to secure persons of considerable office training, capable of producing architectural plans which are both accurate and complete. Ability in designing is desirable, but the principal essential is reliability in the drafting of working plans. There will be no educational examination for these positions. Applicants will be rated according to their training and experience as shown in application form 375. Age limit, 18 to 40 years. Application forms 2 and 375. Applications must be filed prior to closing hour on Aug. 18.

INDUSTRIAL NOTES.

THE ROGERS-SHEAR COMPANY, of Warren, Pa., announces that it has recently sold its steel bar mill at Franklin, Pa., to the Franklin Steel Co. The steel bars for the reinforcement of concrete which the Rogers-Shear Co. have manufactured at this mill, and which the Franklin Steel Co. will continue to manufacture, have been used in some of the largest and most prominent reinforced-concrete structures that have been erected during the past four or five years, among which are the Philadelphia Subway, Erie Canal Construction, St. Louis Water-Works and School Buildings, Bourbon Stock Yards, Louisville, Ky., Michigan and Indiana Trolley Construction, Hughes High School, Cincinnati Railroad Work, Government Work and Trolley Line Construction in all parts of the United States. The Franklin Steel Co. will continue to operate this mill with an experienced rolling mill organization.

THE EXHIBIT of John A. Roebling's Sons Co. at the Alaska-Yukon-Pacific Exposition contains some interesting engineering features, notable among which is a display of full size sections of the supporting cables of the Brooklyn, Williamsburg, and Manhattan bridges. The cable section of the Brooklyn Bridge is 15½ ins. in diameter and contains 5,358 wires, that of the Williamsburg Bridge is 18¾ ins. in diameter with 7,696 wires, while the cable section of the Manhattan Bridge is 20¾ ins. in diameter and contains 9,472 wires. Another interesting detail of the Roebling exhibit is a working model of a double wire rope tramway, with right angle horizontal curve and automatic dump buckets, built on a scale of one-twelfth the actual size. Miniature buckets loaded with shot are transported from a loading station at one end of the model to a dumping station at the other end where the buckets are automatically unloaded. A model of a span of catenary construction with a miniature trolley car is also shown. Wire ropes of every construction are displayed and the processes employed in the production of wire, are suggested by an exhibit of samples beginning with iron ore and continuing in regular order through pig iron, ingots, billets, rolled rods and drawn wire; the samples of wire ranging from the coarser diameters down to a thickness of 1/1,000 of an inch.

AT THE ANNUAL meeting of the stockholders of the Ludlow Valve Mfg. Co., Troy, N. Y., the following directors were elected: John T. Christie and James H. Caldwell, of Troy, and Max Nathan, Marcus Stine, Isaac Untermeyer, J. W. Mack and Alfred Nathan, of New York. Later these directors met and organized, electing the following officers: President, James H. Caldwell; Vice-Pres., Marcus Stine; Treas., Max Nathan; Secy., J. W. Mack; chairman of the Board of Directors, John T. Christie. Mr. Caldwell, who succeeds Mr. Christie as Pres. of the company, has been Vice-Pres. and Gen. Mgr. for the past ten years.

THE U. S. GOVERNMENT has recently placed an order with the Foos Gas Engine Co., of Springfield, Ohio, for six vertical engines to be used in the operation of locks on the Ohio River. The locks are operated by air, the four engines for driving the compressors being of 100 HP. each, and the smaller ones used for auxiliary apparatus. The engines specified are the regular Foos vertical, three-cylinder, single-acting engines, using natural gas for fuel.

THE STONE & WEBSTER ENGINEERING CORPORATION has ordered for the Jacksonville Electric Co., five closed "Pay-as-you-Enter" cars. The bodies are 31 ft. long and are mounted on Standard Motor Truck Co.'s 0-50 trucks equipped with GE-81 4-motor equipments and General Electric Co.'s air brakes. The order is placed with the Cincinnati Car Co.

THE AMERICAN PLATE GLASS CO., at Kane, Pa., is installing a 700-HP. Westinghouse horizontal gas engine for power purposes, and has also just contracted for a 16-in. × 26-in. twin tandem horizontal Westinghouse engine to be direct-connected to a 400-KW. generator.

THE B. F. STURTEVANT CO., Hyde Park, Mass., a Massachusetts corporation with a capital of $500,000, has been reorganized and recapitalized. The new corporation is organized under Massachusetts laws with $1,250,000 6% cumulative preferred stock and $1,250,000 of common stock, and the stock has all been taken by a few of the large owners. John Carr, chairman of the Board of Directors of the First National Bank, Boston, is President, Eugene N. Foss, Treasurer, and E. B. Freeman has been elected Gen. Mgr. The increased capitalization represents capital expenditures during the past year, largely in the erection of a new plant in Hyde Park which cost over $1,500,000. The B. F. Sturtevant Co. has been doing a business of about $3,000,000 a year and the company intends to extend its plant further next spring.

THE TRANSMISSION DYNAMOMETER, invented and patented by Prof. W. H. Kenerson and illustrated and described by him in a paper read before the meeting of the American Society of Mechanical Engineers at Washington in May, 1909, (see Engineering News, May 31, 1909), is being built and placed on the market by the Builders Iron Foundry, Providence, R. I.

TRADE PUBLICATIONS.

ELECTRIC POWER DISTRIBUTION.—Westinghouse Electric & Manufacturing Co., Pittsburg. Circular 1502. Paper; 7 x 10 ins.; pp. 51; illustrated.

The title of this attractive catalog, "Distributing Transformers" is a bit misleading for the book is a brief treatise on present general practice in power distribution. Pole and conduit lines, voltage regulators, lightning protection, etc., are discussed as well as the design, construction and installation of transformers. The book is well worth a place in any engineer's files.

ELECTRIC LIGHTING APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins 4657 and 4660. Paper; 8 x 10½ ins.; pp. 11 and 8; illustrated.

Bulletin 4651 is devoted to the subject of search light projectors for commercial use. There are illustrations, and descriptions of details of various types of projectors and appurtenances. The front page is a handsome picture of the Singer Building in New York City, as illuminated at night by beams from searchlight projectors.

Bulletin 4660 is devoted to an arrangement of artistic diffusing shade and reflector for tungsten incandescent-lamp clusters.

ROCK DRILLS.—The J. Geo. Leyner Engineering Works Co., Littleton, Colo. Paper; 6 × 9 ins.; pp. 12; illustrated.

The special features of the Water Leyner drill are set forth, with the advantages due to the delivery of water and air at the bottom of the drill hole. These advantages include (1) freedom from dust (with the injurious effects of stone dust upon the health of the men who inhale it), (2) cleaning the hole (so that the drill strikes the rock and not the chips), (3) keeping the drill-bit cool and so reducing the wear. A separate sheet contains a reprint of an article in Engineering News, April 22, giving particulars of tests of rock drills on the Los Angeles aqueduct.

STEAM TURBINES.—General Electric Co., Schenectady, N. Y. Bulletin 4669. Paper; 8 × 10½ ins.; pp. 11; illustrated.

This illustrates and describes the various types of Curtis steam turbines for low and mixed pressure. In addition to the illustrations of the turbines, there are curves from tests of an engine in combination with a low-pressure turbine, and a chart showing the power output and costs, to indicate the increased capacity and economy secured by installing low-pressure turbine sets. These low-pressure turbines were designed to render available, in the form of mechanical or electrical power, the energy of steam at low pressure now used with poor economy by condensing steam engines wasted with non-condensing engines.

ELECTRIC RAILWAY APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins 4658, 4668, and 4670. Paper; 8 × 10½ ins.; pp. 4, 15 and 4; illustrated.

The first named bulletin describes a ball-bearing trolley-pole base, designed to produce an extremely sensitive action which, by eliminating the arcing, pounding, wrenching, etc., of ordinary forms, would insure a minimum wear on trolley wheel and overhead construction. A cushioned stop is provided to protect the pole from bending or breaking should the wheel leave the wire.

The second bulletin named describes and discusses the merits of a 50-HP. direct-current, series railway motor with commutating poles. The bulletin also shows characteristic-performance curves and dimension diagrams.

The third bulletin covers gaskets and bellmouths for conduit wiring on marine, railway-car and underground installations.

POWER SUPPLY APPARATUS.—General Electric Co., Schenectady, N. Y. Bulletins 4661 and 4666. Paper; 8 × 10½ ins.; pp. 23 and 19; illustrated.

Bulletin 4661 shows aluminum-cell electrolytic lightning arresters for alternating-current circuits. The efficacy of these arresters depends on their high apparent resistance up to a certain "critical" voltage above which they show a very low resistance and give a great discharge capacity. They are built up of a number of aluminum plates immersed in a suitable electrolyte.

No. 4666 describes a new design of transformer, called "Type H," in which the windings are cylindrical and all disposed about a single vertical, common, central leg. The magnetic circuit is completed by eight radiating yokes and four vertical legs carrying no windings. By the use of silicon steel the size has been slightly reduced and the efficiency and capacity are somewhat increased.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 60.

HIGH DUTY WATER-WORKS PUMPING ENGINE.

City of Perth Amboy, N. J.

Sealed proposals will be received at the office of the Board of Water Commissioners of the City of Perth Amboy, N. J., at the City Hall, at 8.30 o'clock p. m., Sept. 1st, 1909, for furnishing and erecting one twelve-million-gallon pumping engine in accordance with plans and specifications on file in the office of the Clerk of the Board of Water Commissioners in the City Hall, copies of which may be obtained of Samuel J. Mason, Engineer, at No. 102 Smith street, Perth Amboy, N. J. Said engine to be placed in the pump house at Runyon, N. J. Each bidder may bid on Class A and Class B, as specified and such bids to include all accessories usually accompanying an engine of the class bid upon, together with steam and water connections, the whole ready and in place. In comparing bids consideration will be given to special adaptability to conditions met, merit of design and economy, as well as first cost.

Each bid must be accompanied by plans sufficiently in detail to give a clear idea of the sizes and arrangement of the principal parts and by specifications giving a description of the engine, and stating the duty to be guaranteed, length of time required for completion, etc. Each bid must be accompanied by a certified check for an amount equal to five (5) per cent. of the amount of the bid.

The right is reserved to reject any or all proposals.

I. B. TICE, Clerk.

DREDGING.

THE SANITARY DISTRICT OF CHICAGO.

TO CONTRACTORS.

Sealed proposals for the work described below are invited by The Sanitary District of Chicago and will be received by the Clerk of said Sanitary District, at Room 1500, American Trust Building, Chicago, Illinois, until 12 M., Standard Time, on Wednesday, August 25, 1909, and will be publicly opened by the Board of Trustees at a meeting to be held on that day.

The work is divided into Divisions, as follows:

DIVISION ONE:

Dredging the present river channel of the South Branch of the Chicago river, from Lake street to Robey street, and excavating certain premises adjacent to the Chicago river.

DIVISION TWO:

Dredging the east arm of the South Fork of the South Branch of the Chicago river, from Halstead street to Center avenue.

DIVISION THREE:

Removing the present Adams street by-pass located on the west bank of the Chicago river extending from a point some distance north of the north line of Adams street to the north end of the Jackson street by-pass.

All proposals must be made upon blank forms furnished by said Sanitary District and in accordance with the plans, specifications and contract form on file in the office of G. M. Wisner, Chief Engineer, Room 1500, American Trust Bldg.

Plans, specifications and forms of contract and proposals may be obtained upon application therefor.

All proposals must be delivered at the office of the Clerk of said Sanitary District in a sealed package addressed to the Board of Trustees of The Sanitary District of Chicago and endorsed "Proposals for dredging the Chicago river and excavating certain property adjacent thereto.

The bids upon each and any of the said Divisions shall be considered as separate and distinct and separate certified checks or cash in the sum of Two Thousand Dollars ($2,000.00) for Division One; One Thousand Dollars ($1,000.00) for Division Two; Fifteen Hundred Dollars ($1,500.00) for Division Three.

All certified checks must be drawn on some responsible bank doing business in the City of Chicago and shall be made payable to said The Sanitary District of Chicago.

Said amounts deposited with bids will be held by the said Sanitary District until all the respective bids for said work have been canvassed and the contracts awarded and signed. The return of the respective checks or cash to the bidder, to whom the award of all or any part of the said work shall be made, is conditioned upon the appearance of such bidder within ten (10) days after receiving notice of such award, with bondsmen, and executing a contract with said Sanitary District for the work so awarded and giving a bond satisfactory to said Board of Trustees for the faithful performance of said contracts.

Said Board of Trustees reserves the right to reject any and all proposals.

THE SANITARY DISTRICT OF CHICAGO,
By ROBERT R. McCORMICK,
President of Its Board of Trustees.
Attest:
I. J. BRYAN, Clerk.
Chicago, August 4, 1909.

WATER SUPPLY.

Hadley, Mass.

Sealed proposals will be received by the Board of Water Commissioners, until one o'clock p. m. on Saturday, August 21, 1909, for material for the extension of the present Hadley Water Supply District Mains, requiring approximately 14,000 ft. 6-in. and 2,700 ft. 4-in., Cast Iron Pipe, together with necessary fittings, and for laying same, and also for construction of Reservoir and Dam, according to plans and specifications at the office of M. D. Patteson, 25 Main St., Northampton, Mass.

G. FRED. ELISSIER,
Chairman of Board of Water Commissioners.

STREET PAVING.

Griffin, Georgia.

Proposals will be received by the undersigned until one o'clock p. m., Wednesday, September 8th, 1909, for grading, curbing and paving of certain streets with either wood block, vitrified brick, granitoid, or bitulithic material. The work will embrace approximately the furnishing and setting 14,589 linear feet of granite curb, grading concrete foundations and surfacing 32,241 square yards of pavement.

Specifications may be procured and plans and profiles seen at the office of the Resident Engineer, Griffin, Georgia, or at the Atlanta Office of the Consulting Engineers.

Proposals will be opened publicly with the usual rights reserved.

BOARD OF MAYOR AND COUNCIL OF GRIFFIN, GEORGIA.
JULIUS W. GRESHAM, Mayor.
Griffin, Georgia.
DAVIS & CUTTER,
Resident Engineers,
Griffin, Ga.
J. H. SMITH, Chairman,
Street Improvement Committee.
HAZLEHURST & ANDERSON,
Consulting Engineers,
Candler Bldg., Atlanta, Ga.

BRIDGE.

Department of Public Works.
Bureau of Surveys
Office 412 City Hall,
Philadelphia, Aug. 6, 1909.

Sealed proposals, endorsed "Bids for Bridge on Line of Thomas Avenue Over the West Chester & Phila. R. R.," and addressed to the undersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Tuesday, Aug. 24, 1909, for Reinforced Concrete Arch Bridge 63 feet 9 inch span, 80 feet wide. Plans for the above bridge will be exhibited in the office of the Bureau of Surveys, Philadelphia.

Specifications and blank forms upon which bids must be made, will be furnished upon application to the Chief Engineer, Room 416, City Hall.

Bidders must be skilled and regularly engaged in the class of work bid for.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

GEO. R. STEARNS,
Director.

DAM.

Greenwich, Conn.

Sealed proposals will be received by the undersigned at his office, 100 Crown St., New Haven, Conn., until 12 M. Tuesday, Aug. 24th, 1909, for raising Putnam Dam and work appurtenant thereto.

Plans and specifications can be seen and blank forms for proposal can be obtained at the office of the Company, 35 Greenwich Ave., Greenwich, Conn., or at the office of the Engineer, A. B. Hill, 100 Crown St., New Haven, Conn.

Bond on Proposal........	$2,000
Bond on Contract	10,000

A certified check for $2,000 will be accepted in lieu of bond on proposal.

The principal work includes approximately:

Earthwork, dam and roads	50,000 cu. yds.
Rock excavation...........	1,000 cu. yds.
Concrete and masonry.....	2,000 cu. yds.
Paving and riprap........	5,000 sq. yds.
Cement	3,000 bbls.
Wire fencing and railing...	10,000 lin. ft.

The right to reject any and all bids is reserved.

ALBERT B. HILL,
Engineer.

Sealed Proposals will be received at the office of the Light-House Engineer, Baltimore, Md., until 12 o'clock M., August 30, 1909, and then opened, for furnishing materials and labor of all kinds necessary for the construction of a storehouse on the light-house wharf at O and Water Sts., Washington, D. C., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to the Light-House Engineer, Baltimore, Md.

SEWER.

OFFICE OF THE COMMISSIONERS OF SEWERAGE OF LOUISVILLE, KY.
(Incorporated.)

Sealed proposals for the construction of a sewer, known as the South Louisville Branch-Section "C," Contract No. 51 of the Comprehensive System of Sewerage for the City of Louisville, Ky., will be received at the office of the Commissioners of Sewerage until 12 o'clock noon, Aug. 27th, 1909.

The work will consist of the construction of 1,800 ft. of 9' 6" and 3,057 ft. of 5' 6" reinforced concrete sewer, including about 3,850 cu. yds. of concrete and 350,000 lbs. of steel reinforcing bars. Average cut, about 20 ft.

Plans and specifications may be seen at the office of the Commissioners and at the office of Harrison P. Eddy, Consulting Engineer, 14 Beacon St., Boston, Mass.

Sealed bids should be endorsed "Proposals for South Louisville Branch-Section "C" and addressed to the Commissioners of Sewerage, Equitable Bldg., Louisville, Ky. Each bid must be accompanied by a certified check for at least seven per cent. (7%) of the total amount of the bid, or a "Bidder's Bond" as described in the form of proposal.

W. C. NONES, Chairman.
CHAS. P. WEAVER, Secy. & Treas.
J. B. F. BREED, Chief Engineer.

PAVING.

Fort Plain, N. Y., Aug. 4th, 1909.

Sealed proposals for grading, paving and curbing Division street will be received until August 20th, 1909, at the office of the Board of Trustees in the village of Fort Plain, N. Y., until 7.30 o'clock P. M. of that day, at which time and place, all proposals will be opened and read.

Each proposal shall be accompanied by a certified check, payable to Scott C. Walrath, Village Treasurer, for $500.00.

The successful contractor will be required to give a satisfactory bond in the penalty of $3,000.00.

Plans, specifications, approximate quantities and proposed forms may be seen at the office of the Board of Trustees. Copies of the specifications may be had upon application to the engineer.

The Board of Trustees reserves the right to reject any or all bids.

The work consists of the following approximate quantities:

1,494 square yards vitrified brick paving.
422 square yards wood block paving.
1,598 linear feet straight curbing.
122 linear feet curved curbing.

CHARLES W. SAUER,
President.
CHARLES E. PERRY, Engineer,
Canajoharie, N. Y.

PAVING.

Ridgefield Park, N. J.

Sealed proposals for grading, curbing and paving with Amiesite macadam and the construction and erection of catch-basins, manholes, etc., in the Village of Ridgefield Park, Bergen County, New Jersey, will be received by the Board of Trustees of said Village at the Town Hall, Hackensack Road and Grove St., Ridgefield Park, New Jersey, on Monday, August 23d, 1909, at 8:30 o'clock in the evening. A certified check for One Thousand Dollars must accompany each bid and the said Board of Trustees reserve the right to reject any or all bids. Each bid must be delivered by the bidder in person, or by his agent, and no bids will be received prior to or after the hour designated in this Notice, and all bids will be opened immediately and the contents thereof publicly announced and recorded upon the minutes. Plans and Specifications may be seen at the office of Samuel J. Shaw, Jr., Village Engineer, Drug Store Building, Hackensack Road, Ridgefield Park, New Jersey, and the said Engineer will furnish upon request forms for bids.

CYRIL DE WYRALL,
President of Board of Trustees,
Village of Ridgefield Park, N. J.
A. V. MORRISON, Clerk.

ROAD REPAIR.

NOTICE TO CONTRACTORS.—State of New York, Office of the State Commission of Highways, Albany, N. Y.

Pursuant to the provisions of chapter 30, Laws of 1909, sealed proposals will be received by the undersigned at their office No. 53 Lancaster St., Albany, N. Y., at one o'clock P. M. on Friday, the 27th day of August, 1909, for the repair or resurfacing of the following highways:

Repair Contract No.	Road. No.	Name of Road.	Town.
		MONROE COUNTY.	
28	99	Webster, Sec. 2	Penfield-Webster.
	168	Dugway, Sec. 1	Brighton-Penfield.
	169	Dugway, Sec. 2	Penfield.
29	101	Webster, Sec. 4	Webster.
30	173	Hudson Ave. Sec. 2	Irondequoit.
31	256	Little Ridge, Sec. 3	Parma.
	269	Hilton	Parma.
		ERIE COUNTY.	
32	87	Main Street, Sec. 2	Amherst.
33	69	Main Street, Sec. 1	Amherst.
34	86	Big Tree	Aurora-Wales.
35	128	Aurora-Buffalo	West Seneca.
36	584	Skinnersville-New Home Bridge	Amherst.
		MONTGOMERY COUNTY.	
37	32	Amsterdam-Minaville, Sec. 1	Florida.
	108	West Mohawk River	Amsterdam.
		ULSTER COUNTY.	
38	16	Ulster-Delaware, Sec. 1	Shandaken.
	118	Shandaken-Hurley, Sec. 1	Olive.
39	116	Kingston-Rifton	Ulster-Esopus.
	141	Kingston-Ellenville, Sec. 3	Warwarsing.
		WESTCHESTER COUNTY.	
40	17	Hastings-Ardsley	Greenburg.
	18	Ardsley-Elmsford, Sec. 1	Greenburg.
	19	Mamaroneck-White Plains	Mamaroneck-Scarsdale.
	34	Ardsley-Elmsford, Sec. 2	Greenburg-Mt. Pleasant.
	52	Unionville-McKeels Corners	Mt. Pleasant.
	53	McKeels Corners-Briar Cliff	Ossining-Mt. Pleasant.
41	20	White Plains-Cross Road	North Castle.
	35	White Plains-Armonk	North Castle.
	50	Armonk-Mt. Kisco	North Castle-New Castle.
42	51	Mt. Kisco-Bedford	Bedford.
	144	Bedford-Cross River	Bedford-Poundridge-Lewisboro.
	150	Cross River-Turk Hill	Lewisboro.
43	54	Briar Cliff Manor-Tcho Lake	Ossining-New Castle.
	143	Echo Lake-Pines Bridge	New Castle-Yorktown.
	148	Pines Bridge-Yorktown Heights	Yorktown.
	149	Yorktown Heights-Putnam County Line	Yorktown-Somers.
		DUTCHESS COUNTY.	
44	223	South	Poughkeepsie.
		ROCKLAND COUNTY.	
45	91	Nyack Turnpike	Ramapo.

Plans and specifications may be seen and proposal forms obtained at the office of the Commission in Albany; and for contracts Nos. 28 to 36, inclusive, at the office of Division Engineer M. W. Wilbur, Rochester, N. Y.; for contract No. 37 at the office of Division Engineer H. P. Willis, Albany, N. Y., and for contracts 38 to 45, inclusive, at the office of Division Engineer S. J. Stewart, Poughkeepsie, N. Y.

Proposals for each repair contract must be presented in a separate sealed envelope endorsed on the outside with the number of such repair contract. Each proposal must be accompanied by a New York draft or certified check, payable to the order of the State Commission of Highways, for an amount equal to at least five per cent. of the amount of the proposal which such draft or check accompanies; which draft or check will be held by the Commission until the contract and bond are duly executed.

The successful bidder will be required to give a bond for 50% of the amount of the contract, such bond to be executed by a Surety Company to be approved by the Commission; or a bond secured by the deposit of collateral securities to be approved by the Commission.

The right is reserved to reject any or all bids.

S. PERCY HOOKER,
Chairman;
T. WARREN ALLEN,
ROBERT EARL,
Commissioners.

SEWER SYSTEM AND DISPOSAL WORKS.

Board Room, City Hall.
Bordentown, N. J., Aug. 9, 1909.

Authority being given by, or pursuant to, the provisions of Chapters 196 and 266 of the Laws of New Jersey of 1907, Chapter 172 of the Laws of New Jersey of 1908, Chapter 97 of the Laws of New Jersey of 1909, ordinances of the City of Bordentown, New Jersey, June 9th, 1909, and laws amendatory of or supplementary to these laws;

Sealed bids, addressed to the President of the Board of Sewer Commissioners and accompanied by a certified check for at least five per cent. of the amount bid for each section bid upon, will be received up to 8 p. m. Friday, Aug. 27, 1909, for the furnishing all work and materials necessary for the watertight and enduring construction, of each one separately or both together, of the two sections; which jointly comprise about nine miles of eight to fifteen-inch pipe sewer, with branches and appurtenances, and a disposal works with all parts and connections including sandfilters, sludge and flood basins, reinforced concrete chambers and contact beds.

Plans and Specifications, Invitation to Contractors and Forms of Bids and Contract, may be seen here and at the three following offices of the Engineer: 1002 Drexel Building, Philadelphia, Pa.; 220 Broadway, New York City, and 46 Park St., Bordentown, N. J., and may be loaned contractors upon the deposit of fifteen dollars to insure their safe return within five weeks.

Forms of Bids must fulfill requirements of the Invitation and be made upon the printed Form for Bid as above obtained and the Board reserves the right to reject any or all bids, or to accept any bid, or bids, and, later, for each respective section, increase or reduce the quantities and amount, at the prices bid not exceeding twenty-five per cent. of the amount bid for that section.

W. W. YOUNG, Consulting Engineer.
STANLEY WAMPOLE, Secretary.

SEWER.

Westfield, N. J.

Sealed proposals for constructing sanitary sewers and appurtenances will be received by the Council of the Town of Westfield, N. J., at the Town Rooms, No. 129 Elm St., Westfield, N. J., on Monday, August 30, 1909, at 8:15 p. m.

The Engineer's approximate estimate of quantities is as follows:

4,000 lin. ft. 8-in. Vitrified Pipe Sewer.
360 " " " Cast Iron Sewer.
10 Manholes.
164 Branches.
4 Combined Manholes and Flush Tanks.
1 Flush Tank remodelled.

Each proposal must be accompanied by a certified check for $500.00 payable to the order of the Treasurer of the Town of Westfield, signed by the bidder and without condition or endorsement of any kind, as an evidence of good faith, and the successful bidder will be required to furnish a bond of $3,000.00, with sureties acceptable to the Council, to guarantee the faithful performance of the contract.

The Council reserves the right to reject any or all bids.

Duplicate plans and forms of proposal, specifications and contract may be obtained at the office of A. W. Vars, Town Surveyor, No. 129 Elm St., Westfield, N. J.

LLOYD THOMPSON,
Town Clerk.

Dated, August 2d, 1909.

Notice to Bridge Engineers, Architects and Builders

The Board of Supervisors of Maricopa County, Phoenix, Arizona, being about to build a bridge across Salt River, is desirous of securing designs, detail plans, specifications and estimates.

The Board offers $5,000.00 as first and only prize for accepted plans. Party to whom award is made must superintend the erection.

For complete conditions of competition and full information as to proposed bridge address the said Board.

Designs and plans will be received by the Board until September 7th, 1909, at 2 P. M.

To be a wagon and foot bridge of concrete reinforced with steel.

Address—BOARD OF SUPERVISORS,
Maricopa County, Phoenix, Arizona.

SEWERS.

Providence, Rhode Island.

Sealed proposals are hereby invited by the Board of Contract and Supply for the construction for the Department of Public Works, of sewers in the following named Divisions of Section Thirty-two, Woonasquatucket District, Providence Sewerage System, viz.:

In Division One, from present end of sewer in Sheridan street near Aleppo street, through Sheridan street, rights of way across lands of heirs of I. W. Sawin, New York, New Haven & Hartford Railroad Company, Joslin Himalaya Company, Joslin Manufacturing Company, a gangway and Hilarity street to Grimwood street at west line of Hilarity street:

About 3,286 linear feet of 36-inch brick and concrete sewer.

About 175 linear feet of 54-inch brick and concrete storm sewer.

In Division Two, in Grimwood, Ophelia, Gerardy and Springfield streets, from the west line of Hilarity street to the north line of Killingly street at Springfield street:

About 3,420 linear feet of 36-inch brick and concrete sewer.

About 1,586 linear feet of 87-inch by 53-inch brick and concrete storm sewer.

In Division Three, from the north line of Killingly street at Springfield street across Killingly street and Neutaconkanut Park to Plainfield street, and in Plainfield street and Farmington avenue to the west line of Silver Lake avenue:

About 3,300 linear feet of 36-inch brick and concrete sewer.

About 930 linear feet of 24-inch brick and storm sewer.

About 670 linear feet of 20-inch brick and storm sewer.

The bricks, pipe, cement, iron, flagstones and granite will be furnished by the Commissioner of Public Works.

Plans and specifications can be seen at the office of the City Engineer.

Each sewer, with its necessary manholes, catch basins, pipe branches, connections to the curb line, etc., must be bid for separately.

Each bid must be accompanied by a certified check or a satisfactory bond with surety for a sum equal to 10 per cent. of the City Engineer's estimate of the amount of the contract, with the condition that the person making the bid shall execute and deliver the contract and required bond within ten days after the acceptance of his bid, or in default thereof said sum to be for the use of the city as liquidated damages on account of such default.

A bond with a satisfactory surety company as surety in amount equal to 25 per cent. of the amount of the accepted bid will be required of the successful bidder.

All proposals must be submitted in sealed envelopes or wrappers, with the title of the work to which they relate endorsed thereon; and addressed to Mayor Henry Fletcher, Chairman of the Board of Contract and Supply, City Hall, Providence, R. I., and will be received by said Board at their meeting to be held on Thursday, Aug. 19, 1909, at 2 o'clock p. m., in the Clerk of Committees' Department, City Hall, until 2.15 o'clock p. m., or before said meeting may be filed with the Clerk of said Board at his office in said department. At said 2.15 o'clock p. m. all bids will be publicly opened and read. Said Board reserves the right to reject any and all bids.

By order of the Board of Contract and Supply.

HENRY FLETCHER,
Mayor and Chairman.
W. C. PELKEY, Clerk.

PROPOSALS FOR WATER AND SEWER EXTENSION.—War Department, Office of the Constructing Quartermaster, New London, Conn., August 7, 1909.—Sealed proposals for constructing approximately 1,300 linear feet of 6-inch water extension and approximately 2,485 linear feet of 6-inch sewer extension at Fort H. G. Wright, N. Y., will be received here until 10.00 a. m., August 30, 1909, and then opened. Information furnished on application. Envelopes containing proposals should be endorsed "Proposals for Water and Sewer Extension" and addressed CHAS. T. BAKER, Captain and Qr. Mr., U. S. Army, Constructing Quartermaster, New London, Conn.

DEPARTMENT OF THE INTERIOR, August 1, 1909.—Sealed proposals will be received at this Department until 2 o'clock p. m., Monday, August 16, 1909, and then opened, for the construction of a chimney and breeching for the power plant in the courtyard and boiler rooms of the Interior Department (Old Post-Office Department) building, Washington, D. C., in accordance with specifications and drawing, copies of which may be obtained upon applaction to the Chief Clerk of this Department. JESSE E. WILSON, Acting Secretary.

U. S. ENGINEER OFFICE, Montgomery, Ala., August 10, 1909.—Sealed proposals for construction of sea wall at Ft. McRee, Fla., will be received at this office until one p. m., Sept. 10, 1909, and then publicly opened. Information furnished on application. H. B. FERGUSON, Capt., Engrs.

Situations Wanted

Mechanical and Electrical Engineers.

PUMPING MACHINERY, crank and flywheel municipal pumping engines a specialty; mechanical engineer of 20 years' experience is open to engagement as designing engineer or similar position with an up-to-date manufacturing concern, either in the South or West. Address "X. B. 7," Engineering News, New York. 7-2t

Situations Open

WANTED IMMEDIATELY—A number of experienced structural detailers. State experience fully; also salary expected. Address "P," No. 11 Poplar St., Detroit, Mich. 7-1t

WANTED—Several experienced detailers for bridge work and structural steel work, mostly mill buildings. Give education, experience, references, and least salary considered. INDIANA BRIDGE COMPANY, Muncie, Ind. 7-1t

WANTED—Foreman for an ornamental iron shop. None but an experienced and competent man need apply. Permanent position to right party. Address "R. B. 7," Engineering News, New York. 7-2t

"WANT"
Advertisements in ENGINEERING NEWS cost 1½ cents a word an insertion for "Situations Wanted" and 3 cents a word for "Situations Open" and "Miscellaneous Wants." Read them weekly—they will help you.